

The Dialectical Circumplex Model: A Theory of Dialectic and Its Implications for Education

By
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Amber Samson
M.S., University of Kansas, 2014
B.A., University of Michigan, 2011

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Chair: Suzanne Rice, Ph.D.

John Rury, Ph.D.

Argun Saatcioglu, Ph.D.

Jennifer Ng, Ph.D.

Changming Duan, Ph.D.

Date Defended: 8 May 2019

The dissertation committee for Amber Samson certifies that this is the approved version of the following dissertation:

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Chair: Suzanne Rice, Ph.D.

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Abstract

A veil of mystery shrouds the origin and meaning of the dialectical method known as thesis-antithesis-synthesis. Many scholars reject the commonly-held notion that this triadic dialectic began with the enigmatic philosopher Hegel. Wheat's recent book *Hegel's Undiscovered Thesis-Antithesis-Synthesis Dialectics*, however, reaffirms the connection between Hegel and the triadic dialectic while offering a reinterpretation of the Hegelian dialectical format. Still, Wheat dismisses the dialectical method as outdated and without value. With this theoretical dissertation, I seek to demystify the seemingly esoteric concept of dialectic and evaluate the potential educational value of the dialectical method. First, I trace the conceptual development of dialectic from its origins in ancient Chinese, Indian, and Greek philosophy to its more modern interpretations in German idealism and Marxism. Next, I review the applications of dialectic within the fields of psychology and education. For instance, psychological literature alternatively presents dialectical thinking as a stage of intellectual development, a cultural thinking style, and an epistemological belief. From here, I propose a new theory of dialectic, which includes a unified definition of dialectic and a reinterpretation of the Hegelian dialectical method in tetradic form. I map this tetradic dialectical format (i.e., thesis-antithesis-synthesis-diathesis) onto a two-dimensional circumplex model in what I term the dialectical circumplex model. The purpose of this conceptual model is to facilitate dialectical thinking about, generate insights into, and create a more holistic representation of complex phenomena. I demonstrate this function with a dialectical model of knowing, which applies the dialectical circumplex model to the literature on epistemological development. I also explore the educational value of dialectic by outlining a dialectical method for learning. Lastly, I discuss implications of this new theory of dialectic and identify directions for future research.

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Chapter 1: Introduction

Edward O. Wilson, one of the world's most distinguished biologists, envisions a new age of Enlightenment in his 2017 book *The Origins of Creativity*. Citing Gottlieb's (2016) work on the rise of modern philosophy, Wilson identifies two earlier Enlightenments—one in Athens during the mid-5th to late-4th century B.C.E. and one in Europe during the mid-17th to late-18th century. “Heroic ages of the intellect” are not just a thing of the past according to Wilson (2017, p. 193); he insists they are in our future as well:

Scientists and scholars in the humanities, working together, will, I believe, serve as the leaders of a new philosophy, one that blends the best and most relevant from these two great branches of learning. Their effort will be the third Enlightenment. (p. 198)

Wilson (2017) declares that the balance struck between science and the humanities in liberal education is “one of the greatest achievements of the American democratic tradition”; yet, currently they are in a state of disequilibrium (p. 70). Despite the general public's admiration for the humanities, the government repeatedly and increasingly underfunds them in state and federal budgets. Meanwhile, a dearth of qualified workers for science and technology industries has led to a heightened emphasis on STEM disciplines in school curricula. Wilson believes that this demand for creativity and innovation can be met by a reciprocal and synergistic relationship between science and the humanities. Specifically, he contends that the blending of these previously siloed branches of learning will produce new borderland disciplines that can at last solve the great questions of philosophy, such as the meaning of humanity and the nature of consciousness. Therefore, Wilson's (2017) proposed third Enlightenment sees “the return of philosophy to its once esteemed position, this time as the center of a humanistic science and a scientific humanities” (p. 195).

Wilson's proclamation of a third Enlightenment is undeniably bold. He does not offer empirical support for his claims, but instead relies on anecdotal evidence and philosophical argument. Still, his argument is persuasive. It seems reasonable, even logical, that the melding of two established, previously-segregated branches of learning could generate a surge of creativity and intellectual activity. Even if not by design, the layout of Wilson's proposal of a third Enlightenment conforms to the philosophical argumentative method known as dialectic. The *dialectical method* involves the progression from thesis to antithesis to synthesis, in which *thesis* and *antithesis* are two opposing forces whose reconciliation through integration results in *synthesis*.

In Wilson's book, he presents science and the humanities as competing branches of learning. While science explores objective questions, the humanities are concerned with more subjective pursuits. Additionally, he depicts them as rivals in academia who must vie for esteem and resources. Thus, science and the humanities are the thesis and antithesis of Wilson's proposal. In discussing the two branches of learning, Wilson (2017) also describes their complementarity in the quest for discovery:

Contrary to common belief, the humanities are not distinct from science. No fundamental chasm in the real world or process of the human mind separates them. Each permeates the other....all scientific knowledge must be processed by the human mind. The act of discovery is a completely human story. Its telling is a human achievement. Scientific knowledge is the idiosyncratic, absolutely humanistic product of the human brain. (p. 186)

With this excerpt, Wilson reveals that, though seeming opposites, science and the humanities are not just compatible but exist as interdependent elements of human advancement. Accordingly,

his proposed third Enlightenment reconciles the thesis and antithesis—science and the humanities—in a synthesis he calls humanistic science or scientific humanities. Wilson’s (2017) *The Origins of Creativity* is a contemporary illustration of age-old dialectical thought and the conflicting, but complementary, relationship between science and the humanities he documents is just one of myriad examples of dialectic in our everyday lives.

Dialectic as Disputed Hegelian Concept

The triadic dialectic known as *thesis-antithesis-synthesis* is said to have originated with German philosopher Georg Wilhelm Friedrich Hegel. Judged to be among the greatest Western thinkers of the 19th century *and* one of its most inaccessible and misunderstood, Hegel remains as elusive as the philosophical questions he explored. Upon his death in 1831, funeral orators eulogized Hegel as “a modern savior who had come to explain the modern world to itself” (Pinkard, 2008, p. 50). A century later, though, with the rise of analytic philosophy and positivism, Hegel’s writings would have more likely led to his ostracism as a pariah (Beiser, 2008; Stewart, 1996). Interest in Hegel’s work returned briefly in the 1960s, but only insofar as it influenced Marxism. Now, nearly 200 years since his last published work, Hegel is enjoying a bit of a renaissance (Beiser, 2008). In the last 20 years alone, more than 250 books and over 1,500 peer-reviewed journal articles have been published on Hegel. What reason could there be for a philosopher whose work went out of vogue long ago to garner such contemporary attention?

To answer this question succinctly, in the words of Fox (2005), Hegel is “an endless source of inspiration and controversy, a thinker ever inviting appropriation and reinterpretation” (p. 162). Beiser, a fellow scholar of 19th century European philosophy, would likely agree with Fox’s statement. In his introduction chapter to *The Cambridge Companion to Hegel and Nineteenth-Century Philosophy*, Beiser (2008) attributes the recent surge of scholarship on Hegel

to the amenability of his writing to anachronistic interpretation. He claims that recent scholars tend to project their own interests and values onto Hegel; examine Hegel's writing separate from its historical context; and ignore the more antiquated parts of Hegel's philosophy, such as his metaphysics. In addition to its vulnerability to appropriation, Hegel's work continues to intrigue scholars because of its baffling complexity. Stewart (1996) notes that Hegel's "complex philosophical system, couched in a stilted, abstract, and idiosyncratic language" lends itself to numerous (and often divisive) interpretations of his work (p. 2). Still, the explanation for renewed interest in Hegel's philosophy cannot simply be a matter of its perplexing nature; surely there must be something compelling in its substance.

As with any enigma, Hegel has inspired his fair share of speculations and misconceptions among scholars and students alike. In fact, an entire anthology of myths and legends about Hegel and his philosophy exists (see Stewart, 1996). One Hegel scholar, Crites (1998), goes so far as to say that "perhaps no philosopher has ever been so ill-served by standard summary interpretations as Hegel has" (p. xv). For instance, the reference to the dialectical process known as thesis-antithesis-synthesis, despite Hegelian scholar Mueller's (1958) claim that it is a complete fabrication, is still quite commonplace among encyclopedic entries for "G.W.F. Hegel" (Stewart, 1996). Mueller accuses the 19th century German philosopher Heinrich Moritz Chalybaüs of originating the "legend" of thesis-antithesis-synthesis and blames revolutionary Karl Marx (and later Hegel scholars J. M. E. McTaggart and W. T. Stace) for propagating it. A half-century after Mueller's persuasive essay, Verene (2007) concludes that "no first-rate Hegel scholar speaks of Hegel having a dialectic of thesis-antithesis-synthesis" (p.18). Indeed, quite a number of Hegelian scholars since Mueller deny the existence of triadic dialectics in Hegel's writing (e.g.,

Kaufmann, Young, Wilkins, Maker, Solomon, Wood, Pinkard, Dove, Crites, Fox, and Beiser). Still, ever the philosopher's muse, Hegel has inspired yet another reinterpretation of his work.

With his 2012 book *Hegel's Undiscovered Thesis-Antithesis-Synthesis Dialectics: What Only Marx and Tillich Understood*, the late Harvard-educated economist Leonard F. Wheat offers a radical reinterpretation of Hegel's philosophy. Following a survey of 190 authors of books, book chapters, book introductions, and articles explaining Hegel's philosophy, Wheat surmises that no one save Karl Marx and theologian Paul Tillich has had a true understanding of Hegelian dialectics. He argues that the triadic dialectical method is not a myth but figures prominently throughout Hegel's (1807/1977) *Phenomenology of Spirit*. More precisely, Wheat asserts that there are 28 well-concealed thesis-antithesis-synthesis triads in *Phenomenology of Spirit* and another 10 in Hegel's posthumously edited lectures *The Philosophy of History*. He contends that past scholars have failed to find these triads because Hegel deliberately uses obscure language to describe his dialectics. Moreover, Wheat (2012) states Hegel employs a variety of substitute terms to refer to the three dialectical stages (see pp. 61-62). Such secrecy was necessary to cloak what at the time of Hegel's writing would have been a highly objectionable atheist message in *Phenomenology*—one that would have certainly cost him his Berlin professorship (Solomon, 1985; Wheat, 2012). What makes Wheat's book truly groundbreaking, though, is his exhaustive explanation of Hegel's dialectical method. While other scholars only venture abstract descriptions of Hegelian dialectics, Wheat supplies thorough discussions of 10 antithetical conceptual pairs (i.e., pairs of theses and antitheses), 38 thesis-antithesis-synthesis triads, and 3 dialectical formats present in Hegel's writing. (A more detailed account of Wheat's reinterpretation of Hegelian dialectics can be found in chapter two of this dissertation.)

Nevertheless, even Wheat is loath to credit Hegel's dialectical method with any importance. After spending some three hundred pages meticulously explaining Hegel's dialectical system, Wheat (2012) concludes by rejecting its utility altogether:

But I find it impossible to identify anything commendable in Hegel's thought. Not only is it outdated, even in its time it was without intellectual value....dialectics is not a real natural process of any sort; it is just a method of exposition—exposition of fiction. (p. 348, 355)

Yet, by Wheat's own admission, Marx and Tillich—the only other scholars to truly understand Hegelian dialectics—employ Hegel's dialectical formats in their own influential philosophies (i.e., dialectical materialism and dialectical realism, respectively). Not to mention, taken as a whole, Hegel's writing has given rise to “virtually all major schools of contemporary thought: phenomenology, existentialism, Marxism, critical theory, structuralism, pragmatism, hermeneutics, and so on” (Stewart, 1996, p. 4). Considering Hegel's legacy, might Wheat and others be too quick to discredit thesis-antithesis-synthesis dialectics? Could Wheat's reinterpretation of Hegel's dialectical thought reveal an as yet undiscovered value in its method? This dissertation aims to explore these questions by conceptualizing Hegelian dialectics as an educational tool instead of merely an expository device.

Dialectic as Topic of a Theoretical Dissertation

The purpose of Hegel's *Phenomenology*, according to Wheat (2012), is to teach readers how to think dialectically so that they can attain self-realization. In the preface of *Phenomenology*, Hegel (1807/1977) refers to the thesis-antithesis-synthesis dialectic:

The *triadic form* must not be regarded as scientific when it is reduced to a lifeless schema, a mere shadow, and when scientific organization is degraded into a table of

terms. Kant rediscovered this triadic form by instinct, but in his work it was still lifeless and uncomprehended; since then it has, however, been raised to its absolute significance, and with it the true form in its true content has been presented, so that the Notion of Science has emerged. (p. 29)

Some scholars cite the phrase “lifeless schema” in this excerpt as evidence of Hegel’s dismissal of the triadic dialectic (e.g., Fox, 2005; Mueller, 1958). However, a more careful reading of this passage suggests it is specifically Immanuel Kant’s tabular representation of the triadic form that Hegel denounces. Wheat corroborates this understanding when he identifies the second half of this excerpt to be Hegel’s foreshadowing of what is to come in *Phenomenology*—namely, a presentation of the triadic dialectic in its true form that elevates it from a “lifeless schema” to a “Science.” It seems likely that Hegel intends the series of dialectics in *Phenomenology* to educate readers in this science. Wheat (2012) explains, “the dialectic, not the ostensible topic under discussion, is the whole point of Hegel’s discussion. Hegel is educating ‘consciousness’ ...in the technique of thinking dialectically” (p. 206).

Based on this interpretation, I argue that the real value of Hegel’s dialectical method lies not in its particular application within *Phenomenology*, but in its ability to facilitate dialectical thinking *through* such application. In other words, the *process* of applying the dialectical method to an area of study may be even more educationally relevant than its end product—for if a program that teaches a new skill is called educational, might not the same be said for a method that teaches a new way of thinking? Since no one has yet to evaluate the thesis-antithesis-synthesis dialectical method in terms of its educational merits—certainly not since Wheat’s reinterpretation of Hegel—I intend this dissertation to do just that. In my endeavor to conceptualize the dialectical method as a pedagogical tool, I propose a new theory of dialectic

called the dialectical circumplex model. This model attempts to unify and improve upon previous theories of dialectic to make dialectic accessible to a modern audience and more amenable to educational application.

Before outlining the chapters to come, I wish to clarify that the literature review of this dissertation is not intended to be a review of Hegel's entire philosophical system nor an exhaustive list of all the ways in which Hegel or other theorists discuss dialectics in their writing. Rather, the purpose is to familiarize the reader with the concept of dialectic. Thus, chapters two and three of this dissertation survey the *breadth* of conceptualizations offered by various thinkers across time and disciplines. (For a more thorough discussion of any particular philosophy or theory, please refer to the citation given in-text and its corresponding reference provided at the end this dissertation.) In chapter four I present my new theory of dialectic and, then, explore its potential educational value in chapter five. Below, I offer a more complete account of what is covered in each chapter of this dissertation.

Chapter one has served as an introduction to this dissertation. I first oriented the reader to the concept of dialectic by providing a contemporary example of its application. Wilson's proposal of a third Enlightenment takes the dialectical form thesis-antithesis-synthesis. In his argument, science and the humanities represent thesis and antithesis branches of learning while his proposed humanistic science represents their synthesis. Next, I situated dialectic within Western thought. I highlighted the dissidence surrounding the dialectical method and its association with the enigmatic Hegel. Finally, I described the purpose and goals of this theoretical dissertation—paramount among them being to evaluate the educational value of the dialectical method.

Chapter two is a review of dialectic in philosophy. In it, I trace the conceptual development of dialectic from its ancient origins to its more modern interpretations. The dialectical perspective, as readers will discover, is evident as far back as the 6th century B.C.E. when Chinese philosopher Laozi wrote the *Tao Te Ching* (the *Book of Changes*). The 500 years of cultural exchange and colonization, which followed Alexander the Great's trip to India in the 4th century B.C.E., resulted in remarkable parallels between Indian and Greek dialectical thought. The ancient Greek philosophers Socrates, Plato, and Aristotle established the notion of dialectic as a method of argumentation. This conception stood until 18th century German philosopher Kant resurrected the term with his transcendental dialectic. His successors, Fichte and Hegel, constructed and refined the now-familiar triadic dialectical form, thesis-antithesis-synthesis. Marx and Tillich, then, borrowed this dialectical format for their respective philosophies. I conclude chapter two with a summary and discussion of dialectic in philosophy.

Chapter three is a review of dialectic in psychology and education. In it, I provide an overview of various theories of dialectic across relevant subdisciplines of psychology and education. For instance, the concept of dialectic shows up in the cognitive and developmental psychology literature as a stage of mature intellectual development called *dialectical thinking*. In the social and cultural psychology literature, the concept of dialectic appears as a cultural thinking style employed primarily by East Asians called *naïve dialecticism*. The models of epistemological development, which appear in the educational psychology literature, reflect the dialectical progression thesis-antithesis-synthesis. Educational literature also contemplates the concept of dialectic, though, to a lesser extent than philosophy and psychology. For example, educational theorists and practitioners sometimes describe educational processes, such as teaching and learning, as dialectical in nature. Some even consider how dialectical reasoning can

be cultivated in educational environments. I conclude chapter three with a summary and discussion of dialectic in psychology and education.

Chapter four is my proposal of a new theory of dialectic. I begin this chapter by explaining the underlying framework of my theory. I present a unified definition of dialectic—one that consolidates the many conceptions of dialectic from philosophy, psychology, and education. Next, I reinterpret Hegel's dialectical method in what I believe is a more suitable tetradic (as opposed to triadic) form. Then, I give an overview of two-dimensional circumplex models before introducing my own conceptual model of dialectic. The proposed *dialectical circumplex model* displays my tetradic dialectical method in a two-dimensional model. I intend educators, students, scholars, and practitioners to apply this model to an area of interest and, in so doing, facilitate dialectical thinking about, generate insights into, and gain a more holistic understanding of complex phenomena. I demonstrate such an application with my *dialectical model of knowing*, which depicts the literature on epistemological development in a dialectical circumplex model. I conclude this chapter with a summary and discussion of the potential utility of this new theory of dialectic.

Chapter five operates as a conclusion to this dissertation. Instead of simply summarizing the preceding chapters, I anticipate potential critiques of my theory of dialectic and refute them by recapitulating conclusions from earlier chapters. Next, I discuss the practice and research implications of my theory of dialectic. I present a *dialectical method for learning* as an educational application of the dialectical circumplex model and pedagogical tool. Lastly, I recommend directions for future research and, once again, consider Wilson's prediction of a third Enlightenment.

Chapter 2: Dialectic in Philosophy

Put simply, a *dialectic* is a dynamic system in which a conflicting but reciprocal relationship exists between elements. Therefore, when we view oppositional relationships as both interdependent and complementary, we are thinking dialectically (Fox, 2005). When we describe phenomena in relational terms and reason from oppositions, we are also thinking dialectically—for ideas and concepts are rarely understood in isolation. Indeed, many things are defined in reference to their opposites (Fox, 2005). The concept of day, for example, derives meaning from its juxtaposition to night. Dialectical thinkers recognize that opposite forces, while suspended in perpetual tension, are mutually dependent parts of a meaningful whole. For instance, the oppositional relationship between day and night creates a meaningful whole represented by a clock that displays the time of day. The clock's hour has meaning not in and of itself, but because it indicates our progression through the day (proximity to night) or our progression through the night (proximity to day). Dialectical thinkers believe that the world and everything in it is ever-changing. Even as we endeavor to name and describe the world around us, it is in the process of unfolding. As a result, a definition that applies at one instant may not hold true at another point in time or within a different context. Returning to our example of dialectic, for those living in the northern- and southernmost regions of the globe, the standard definitions of day and night are befuddled by the presence of consecutive twenty-four-hour periods of polar day and polar night. Such an inconsistency does not disconcert the dialectical thinker, however. In her or his eyes, contradiction and change are inevitable aspects of the world in which we live; to acknowledge their existence brings one closer to the truth of reality.

This conception of dialectic derives from ancient Eastern and Western philosophical thought. Even as modern thinkers have honed and repurposed the concept, they preserve the essence of dialectic as it was first conceived. I intend to do the same. Therefore, before I present my own theory of dialectic, I find it imperative to review the history and development of dialectic within philosophy. While the actual term dialectic originated in ancient Greece, dialectical thought abounds in Chinese and Indian philosophical traditions as well. This chapter surveys the various conceptualizations of dialectic from its ancient origins to its reemergence in Western philosophy in the late-18th century. This dissertation's deliberately narrow focus on dialectic unavoidably results in an incomplete representation of any one of the following philosophers or philosophical traditions. For those readers who desire a more thorough explanation of a particular philosopher's thought, I implore them to consult the sources cited throughout this chapter.

Ancient Origins of Dialectic

In my analysis of the history of dialectic, I located the origin of dialectical thought in ancient Chinese, Greek, and Indian philosophical traditions. While their conceptualizations of dialectic vary, each philosophical tradition recognizes the presence and interdependence of opposites in nature and the inevitability of change. I begin this review of dialectic in philosophy with an introduction to the Chinese dialectic, which I discuss further in chapter three. Next, I present the similarities between Indian and Greek dialectical thought as a likely result of cultural diffusion. I include a more thorough examination of the ancient Greek dialectic since it is the forerunner to the German philosophical conceptions of dialectic, including Hegel's dialectical method. Following this section on the ancient origins of dialectic, I continue my review of

dialectic in philosophy with a discussion of the more modern interpretations of dialectic put forth by thinkers of German Idealism and Marxism.

Dialectic in Chinese philosophy. Confucianism, Buddhism, and Taoism all stem from the same 6th century B.C.E. text called the *Tao Te Ching* (the *Book of Changes*), which was presumably written by an ancient philosopher known as Laozi (Li, 2018; Wong, 2006). Chinese thinkers from each successive dynasty have read and interpreted this classic Chinese text. From their multitude of interpretations emerges a common understanding—namely, that the *Book of Changes* presents a dialectical understanding of reality. Laozi’s philosophy views phenomena in the universe as ever changing due to the continual interaction of opposite forces. Consequently, traditional Chinese thought, which finds its origin in this seminal text, conceives of contraries as complementary and beneficial rather than incompatible and problematic (a typical characterization of contradiction in Western thought).

According to Li (2018), the Chinese dialectical understanding of reality consists of three components: (a) the ontology of Tao, (b) the epistemology of yin-yang, and (c) the methodology of wu. The first theme, *Tao*, means “heaven-human integration” or diversity-in-unity. Tao is a pattern of existence in which “all opposite elements always coexist in an interdependent, interactive, and interpenetrative manner to achieve both natural and social harmonies” (Li, 2018, p. 47). The acceptance of Tao is the acknowledgement that complexity is inevitable and desirable. The second component of Chinese philosophy, *yin-yang*, is a cognitive system of balancing in which opposites are perceived as both conflicting and complementary. Yin-yang balancing treats opposites as part of a holistic and dynamic system. Chinese dialectical thought regards opposites in relative rather than absolute terms. Opposites are in partial overlap, both spatially and temporally. Their reciprocal relationship is mutually negating and mutually

affirming (Li, 2008). Thus, traditional Chinese philosophy concludes that enrichment is to be found through the simultaneous application (i.e., the middle way), rather than the averaging, of opposite poles (Wong, 2006). While Western thinkers might find this epistemological perspective logically debilitating, Chinese thinkers generally view ambiguity and uncertainty as necessary components of learning in complex contexts (Li, 2008). This brings us to Li's third component of Chinese philosophy, *wu*. *Wu* refers to the application of intuitive imagination in exploratory learning. Li (2008) describes *wu* as the bridging of the non-rational and rational through the application of artistic approaches to scientific issues. Traditional Chinese philosophy promotes a dialectical understanding of reality, which first appeared in the ancient text *Book of Changes*, as the true path to insight and wisdom. This dialectical philosophy involves the appreciation of Tao, balancing of yin and yang, and practice of *wu*. Today, this dialectical conception lives on among contemporary East Asians as a lay belief, which Peng and Nisbett (1999) call naïve dialecticism (explained in more detail in chapter four).

Indo-Greek diffusion. Criticisms of dogma and responses to monism (i.e., the belief in oneness or an absolute entity) mark the beginning of dialectical thought in Indian and Greek philosophical traditions. Ancient Greek philosopher Heraclitus (fl. c. 500 B.C.E.) and early Buddhists cite process and a lack of fixed essence in their arguments against monism (McEvelley, 2002). According to Heraclitus, the permanent element of nature is change because all things are continually in flux. Since everything in the world is in the process of becoming, nothing can be said to be static and unchanging, to exist in and by itself, or to have a definable essence. Excerpts from Heraclitus' fragments, such as "We both are and are not." (Fr. 49a) and "It is impossible to step in the same river twice" (Fr. 49a), best exemplify his dialectical understanding of the world (as cited in McEvelley, 2002, p. 37). What we are in one moment is

not what we are in another, and the same can be said for the river. Thus, Heraclitus concludes that repeating the same event is impossible. This notion of flux is also present in early Buddhism. In the *Mahavagga*, for example, the Buddha (fl. c. 450 B.C.E.), like Heraclitus, employs an analogy of a river that is never the same for two moments to illustrate the concept of impermanence (McEvelley, 2002). Parallels like this one between classic Indian thought and Heraclitus' doctrine of flux are particularly robust. In fact, passages from the Hinduist *Vedas* and *Upanisads* bear such an uncanny resemblance to fragments of Heraclitus (see McEvelley, 2002, p. 36-44) that scholars generally deduce that one inspired the other or they borrowed from an unknown common source.

The similarities between ancient Greek and classical Indian philosophies do not end there. McEvelley (2002) asserts that the first systematic Indian dialectic appeared in Nāgārjuna's (c. 150-c. 250) *Verses on the Middle Way*. From Nāgārjuna's writings, sprang the Buddhist school Mādhyamika, or the Middle way, which went on to influence thought in India, Tibet, and China. In his writings, Nāgārjuna described a fourfold negation (*catuskoti* in Buddhism) that finds its parallel in the ancient Greek philosophical tradition known as Pyrrhonism. While Nāgārjuna says "One should say of each thing that it neither is, nor is not, nor both is and is not, nor neither is nor is not," the Greek philosopher Pyrrho of Elis (c. 360-c. 270 B.C.E.) is reported as saying "We should...[say] of each thing that it no more is than is not, than both is and is not, than neither is nor is not" (as cited in McEvelley, 2002, p. 495). These nearly identical pronouncements represent a dialectical tradition of suspending judgment. Rather than affirming or denying a particular belief, Buddhism and Pyrrhonism propose taking the middle way.

According to McEvelley (2002) and Kuzminski (2008), the parallelism between Greek and Indian philosophies is more likely a result of diffusion than of independent development.

Both McEvilley and Kuzminski claim that diffusion likely occurred during Pyrrho's trip to India with Alexander the Great in the 4th century B.C.E. However, they disagree regarding the direction of this diffusion. Whether the Greek dialectic influenced Indian thought as McEvilley (2002) believes more likely or the Indian dialectic influenced Greek philosophy as Kuzminski (2008) argues, one thing is for certain. The transmission of philosophical traditions between India and Greece was bidirectional during the 500-year-long period of cultural exchange between the civilizations following Alexander's colonization of northwest India. As a result, dialectical thought is a well-developed element of both ancient Indian and Greek philosophies.

Dialectic in Greek philosophy. Contemporary investigations of dialectic in philosophy tend to focus on its ontological roots, but, at its inception, dialectic served a much more practical purpose (Fink, 2012). For ancient Indians and Greeks, dialectic was a method of question-and-answer argumentation or debate. In ancient India, *brahmodya*, a Vedic ritual in which riddle-like questions were answered with rote recitation, evolved into the investigative debates described in the *Nyāya Sūtras* (McEvilley, 2002). These debates brought about developments in logical and dialectical thought in India. Dialectical debate in ancient Greece also contributed to advances in philosophical thinking there.

The Greek philosopher Aristotle (384-322 B.C.E.) traces the concept of dialectic back to Zeno of Elea (490-430 B.C.E.) (Butler, 2012; Kullmann, 2012). While not a dialectician per se, Zeno's famous paradoxes use a method of indirect proof to expose contradiction in an assumed thesis, thereby rendering the original thesis false (Butler, 2012; Hanhijarvi, 2015). Socrates (469-399 B.C.E.), a major founder of Western philosophy, employs a similar type of indirect method in his style of debate known as *elenchus*. According to Plato's (427-347 B.C.E.) characterization of Socrates—for Socrates never wrote anything down himself—the Socratic method called

elenchus involves one person (typically Socrates in Plato's dialogues) skillfully asking questions of a respondent (the interlocuter). The Socratic questions, by design, inevitably lead the interlocuter to contradict or refute an earlier assertion she or he made uncritically, revealing error in the original thesis (Dorion, 2012; Roberts, 1973). Contrary to assumptions, humiliating the interlocuter is not the goal of *elenchus*. Rather, Socrates intends his dialectical debate method serve as a "pedagogical instrument" to "liberate thought" and inspire "a quest for genuine knowledge" among ancient Greeks (Dorion, 2012, p. 253; Hanhijarvi, 2015, p. 56, Roberts, 1973, p. 5). The Socratic method, much like the Chinese dialectic, is meant to bring about wisdom.

Although many scholars consider Socrates the greatest dialectician of ancient Greece, the term *διαλεκτική*, literally the art of conversation, appears to originate with his most famous student Plato (Kahn, 2012). Plato's writings are almost entirely in the form of dialogues or conversations between Socrates and others. In his middle and later dialogues, though, Plato makes the shift from depicting the Socratic method to outlining his own dialectical method. It is in these dialogues that Plato's view of dialectic as a philosophical method to arrive at truth appears (Fink, 2012; Roberts, 1973). His later dialogues suggest that, through a process of dialectical negation, the conditioned experience of a phenomenon can be destroyed to reveal the true, unconditioned reality beneath (McEvilley, 2002). In other words, Plato believes that that which we observe through our senses in the material world is merely an imitative, false reality. The true essence of any object or concept lies instead in the world of "Forms." Plato theorizes that the true nature of a thing (i.e., the exemplar that exists as an eternal Form) can be understood through a linguistic exchange about what things are (i.e., a dialectical pursuit of definition) (Kahn, 2012). If one detects contradictions or inconsistencies in a posited hypothesis, then a new

hypothesis must supplant the original hypothesis, and this process continues until one uncovers the highest truth (Roberts, 1973). Thus, the Platonic dialectic pursues questions about reality through an iterative process of reasoning. From Socrates to Plato, there is a shift in the purpose of dialectic. While the Socratic method intends to reveal errors in faulty arguments and expose ignorance, the Platonic dialectic seeks to identify truth and reveal knowledge.

Plato may have invented the term dialectic, but it is his student, Aristotle, who first presents a theory and methodology of dialectic in book form (Roberts, 1973). In Aristotle's time, argumentative competitions—or what Kullmann (2012) refers to as “academic gymnastical disputes”—were commonplace among the intellectual elites of ancient Greece (p. 298). For Aristotle, dialectic is simply the skillful argumentation of contrary opinions represented by a thesis and antithesis. For this reason, Aristotle's *Topics* reads more like a training manual for dialecticians than a treatise on dialectical theory, as it is full of intellectual exercises (Roberts, 1973). Although Aristotle concedes that one can gain access to first principles of all branches of knowledge via the critical examination of opinions, he does not view dialectic as a vehicle to scientific truth as Plato does (Kullmann, 2012; Roberts, 1973). As an empiricist, Aristotle devalues dialectic as an imperfect procedure for testing propositions (Fink, 2012; Roberts, 1973). He considers sense perception and experience of the natural world, not dialectical reasoning, the essential precursors to scientific knowledge. In fact, it is Aristotle's rejection of dialectic and subsequent introduction of formal logic to philosophy that eventually leads to the virtual disappearance of dialectic from Western thought from the Middle Ages up until the late-18th century.

Modern Interpretations of Dialectic

By the end of the Middle Ages, logic supplanted dialectic and took its place alongside the disciplines of rhetoric and grammar in liberal arts education. Indeed, “dialectic” is all but extinct from the Western lexicon until German philosopher Kant (1724-1804) reappropriates the term in his own transcendental philosophy (Roberts, 1973). In one of his most important works, *Critique of Pure Reason*, Kant calls dialectic “the logic of illusion” (as cited in Hanhijarvi, 2015). Kant believes what we know about the world is only through that which we perceive. In other words, human understanding of reality is limited to the mind’s conditioned representations of objects. To say we know anything of the “thing in itself” is a falsehood according to Kant. Likewise, any attempts to transcend the bounds of experience through reason creates an illusion of knowledge (Wilson, 2007). This is the ultimate error of the dialectician. Kant’s contribution to the evolution of dialectic within philosophy is, first, to have resurrected it and, second, to have turned it inward. Unlike the dialectic of ancient philosophy, which occurred in dialogue with another, Kant’s transcendental dialectic unfolds in dialogue with the self (Hanhijarvi, 2015). When individual reason confronts contradictions (*antinomies* for Kant) within itself, then it becomes conscious of its own finitude (Roberts, 1973). It is this idea of self-consciousness that led to the philosophical movement known as German idealism.

Dialectic in German idealism. While Kant believes the thing in itself is involved in the mind’s experience and representation of any given object, German idealism posits a world purely made up of concepts and ideas of the mind (Wilson, 2007). Kant’s *transcendental unity of apperception* considers the “I” or ego to be the unity of all experience. Idealists take this idea a step further to suggest that there exists an absolute, unconditioned reality that is accessible through the ego. Fichte (1762-1814), a founding figure of German idealism, declares the active

ego (i.e., the thinking mind) the source of everything, spontaneously and unconsciously constructing the world as we perceive it (Wilson, 2007). He explains the unity of subject and object using the following dialectical triad: (1) thesis- the free activity of the ego, (2) antithesis- the limiting of this activity by the categories and concepts of the ego in the construction of the objective world, and (3) synthesis- the ego's awareness of the object as object and of itself as subject (Wilson, 2007, p. 42). While Fichte does not actually use the terms thesis, antithesis, and synthesis, he develops a science of knowing that influenced other post-Kantian idealists including Hegel (Robert, 1973; Wilson, 2007). Instead of contradiction signifying lack of truth as it did for Plato and Aristotle, the Fichtean method views each proposition about reality as a thesis that must be counter-balanced by an antithesis (Roberts, 1973). In the beginning, a *thesis* forms from an abstraction that is meant to be all-inclusive but fails. Thus, an *antithesis*, opposing or contradictory idea, arises alongside or in reaction to the thesis. Then, a *synthesis* reconciles the two. This synthesis becomes the new thesis and the process continues ad infinitum. This systematic, triadic process first described by Fichte is closest to the modern conception of dialectic in the West.

Although Fichte is the ostensible link between Kant and Hegel (1770-1831), it was the feeling of being overshadowed by his long-time friend and colleague Schelling (1775-1854) that ultimately propels Hegel (1807/1977) to write *Phenomenology of Spirit* (Pinkard, 2008; Wheat, 2012). Prior to 1807 Hegel gives no sign of being anything other than a faithful disciple and champion of Schelling (Pinkard, 2008). With *Phenomenology*, though, Hegel rejects Schelling's conceptualization of the Absolute as God, instead proclaiming it reason itself (Wilson, 2007). In fact, Hegel's primary dialectic in *Phenomenology*, for Wheat (2012) names 28 in total, traces the evolution of "Geist" (Spirit or mind in German) to "Absolute Knowing" (i.e., self-

consciousness). In this dialectic, Hegel maps Spirit's dialectical movement thusly: (1) thesis- Spirit is unconsciously a unified whole, (2) antithesis- humans arrive and Spirit is consciously self-estranged into many particulars (e.g., subjects and objects), and (3) synthesis- Spirit becomes self-conscious when humans realize that they and everything they see compose one universal entity (Wheat, 2012). This dialectic represents one of the three Hegelian dialectical formats, each of which I describe in detail below.

According to Wheat (2012), Hegel employs various antithetical conceptual pairs to outline the dialectical processes he describes in *Phenomenology*. An antithetical pair consists of two opposing concepts typically represented by one word each. Here are just a few of the 35 pairs that Wheat (2012) labels: (a) universal and particular, (b) union and separation, and (c) potential and actual. One of the dialectical formats Hegel uses to arrive at conceptual synthesis involves recognizing the antithesis as actually the thesis in disguise. As shown in Figure 1, if the thesis is A and the antithesis is B, then the synthesis is $A = B$. A Hegelian example of this format is a thesis of "divine," an antithesis of "human," and a synthesis of "divine = human" (Hegel, 1807/1977). This dialectic suggests that that which is human is also divine because "God" is a product of the human imagination (Wheat, 2012). To further illustrate this format, let us consider a more modern example. The fashion world recycles old fads like bell bottoms or crop tops and masquerades them as the latest trends until these inevitably become passé and a new-old style takes its place. This is the most basic of Hegel's dialectical formats.

Hegel's second dialectical format follows a similar pattern. Rather than a synthesis where $A = B$, though, the synthesis is A *composed* of B (see Figure 1). A Hegelian example of this format is a thesis of "infinite," an antithesis of "finite," and a synthesis of "infinite composed of finite particulars" (Hegel, 1807/1977; Wheat, 2012). This dialectic portrays the universe as an

infinite collection of finite elements. The familiar American motto *e pluribus unum*, which roughly translates to “from many, one,” epitomizes the synthesis of this second dialectical format. The United States, itself a single country made up of 50 states, embodies the synthesis one composed of many. This Hegelian dialectical format highlights the dependency of opposites in the creation of a whole.

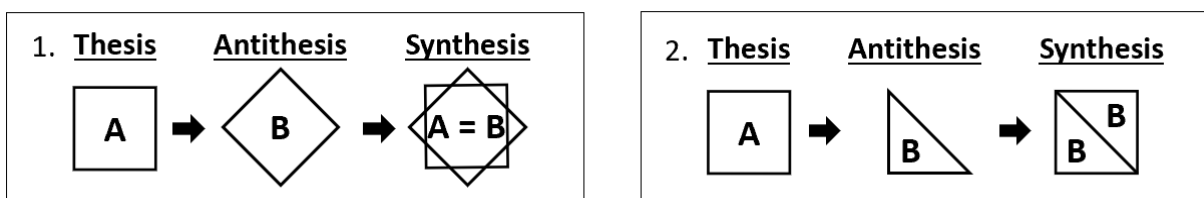


Figure 1. A diagram of two of Hegel’s three main thesis-antithesis-synthesis dialectical formats [identified by Wheat (2012)]. 1. This dialectical format shows the thesis “A” represented by a square, the antithesis “B” represented by a congruent square with a different orientation, and the synthesis “A = B” represented by the overlapping of the two congruent squares. 2. This dialectical format shows the thesis “A” represented by a square, the antithesis “B” represented by an isosceles right triangle, and the synthesis “A composed of B” represented by two isosceles right triangles forming a square congruent to the thesis “A” square.

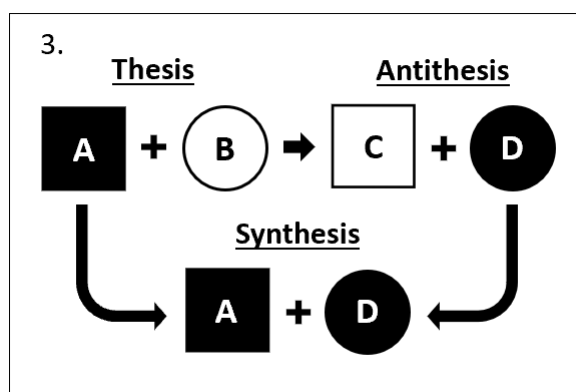


Figure 2. A diagram of Hegel’s two-concept thesis-antithesis-synthesis dialectical format [one of three main dialectical formats identified by Wheat (2012)]. 3. This dialectical format shows the thesis “A + B” represented by a black square and a white circle, the antithesis “C + D” represented by a white square and a black circle, and the synthesis “A + D” represented by a black square and a black circle.

The final dialectical format Wheat (2012) delineates is the one that most distinguishes Hegel from his predecessors. This format features double opposition, in that the thesis and

antithesis oppose each other along two dimensions. In contrast to the other dialectical formats, this version features a thesis, antithesis, and synthesis that are composed of two concepts each. This results in an antithesis that opposes the thesis in two ways and allows for a synthesis that combines an element from the thesis and an element from the antithesis. If the thesis is $A + B$, for example, and the antithesis is $C + D$ where C is the opposite of A and D is the opposite of B , then the synthesis may either be $A + D$ or $B + C$, but *neither* $A + C$ nor $B + D$ (see Figure 2). The primary dialectic Hegel (1807/1977) presents in *Phenomenology* described above (i.e., Spirit's dialectical progression toward Absolute Knowing) follows this third dialectical format.

According to Wheat (2012), Hegel describes the dialectical movement of consciousness as beginning with Spirit in a primitive state of unconscious union. When humans arrive, Spirit separates into many constituent parts, creating a conscious separation between Spirit, humans, and external objects. Then, humans realize that they and everything they see are essentially Spirit, allowing them (and Spirit) to attain a state of conscious union (Wheat, 2012). In Hegelian terms, the dialectic is the movement from a thesis of unconscious union to an antithesis of conscious separation to a final synthesis of conscious union. In this dialectic, the two antithetical conceptual pairs are “unconscious and conscious” and “union and separation.” The synthesis borrows “union” from the thesis and “conscious” from the antithesis to reconcile the thesis and antithesis in a “conscious union.” It is this two-concept dialectical format that Wheat (2012) claims Karl Marx and Paul Tillich utilize in their respective philosophies.

Dialectic in Marxism. Marx (1818-1883) is one of several followers of Hegel that form a radical left wing known as the Young Hegelians. A product of the Industrial Revolution, Marx predicates his philosophy on the belief that the material world determines our wills (Hanhijarvi, 2015). Unlike his predecessors, Marx conceives of dialectical processes taking place in the

material world instead of the world of ideas (Wheat, 2012). He asserts that “in history one needs to work through a materialistic dialectic before one can enjoy a humanistic dialectic” like Hegel’s (Hanhijarvi, 2015, p. 134). Such a thought is congruent with psychologist Maslow’s (1943) hierarchy of needs in which the pursuit of self-actualization only comes after one’s more basic needs are met. Marx maintains that only once society’s material needs are met by improved methods of production can society realize a communist utopia in which true freedom, creativity, and self-expression flourish. His theory, which scholars label *dialectical materialism* or historical materialism, characterizes history as a story of progress driven by class struggles within the economic system. Marx (and his collaborator Engels) divides history into the following five periods: (a) primitive communism, (b) slavery, (c), feudalism, (d) capitalism, and (e) final communism.

Bober (1950) uncovers a three-stage dialectic within Marx’s five modes of production: a thesis of primitive communism; an antithesis of the private property of slavery, feudalism, and capitalism; and a synthesis of final communism. Wheat (2012) elaborates on Bober’s interpretation of Marx’s historical dialectic with the following two-concept dialectical process: (1) thesis- primitive communism = communal ownership (classless society) + poverty; (2) antithesis- slavery, feudalism, and capitalism = private ownership (class society) + wealth; and (3) synthesis- final communism = communal ownership (classless society) + wealth (p. 255). According to Wheat (2012), Marx’s theory of dialectical materialism uses the antithetical pairs of “communal ownership and private ownership” and “poverty and wealth” to create a synthesis in which “communal ownership” and “wealth” form a communist utopia. Marx’s theory of dialectical materialism takes Hegel’s dialectical method out of a purely philosophical world and applies it to the material world with the hope of transforming it into a powerful mechanism of

societal change. Marxist dialectical theory did, in fact, inspire various economic and social movements (although, most were unsuccessful in achieving a utopic synthesis).

The German-born American theologian and philosopher Tillich (1886-1965), for example, uses Marxist themes in his writing to promote the idea of religious socialism (O’Keefe, 1981). Tillich posits a sense of solidarity and shared meaning can be derived from a common ideal of humanity in which love and justice prevail. In his three-volume *Systemic Theology*, Tillich looks to reinterpret the relationship between Christian theology and socialist theory as fundamentally dialectical in nature. In contrast to Hegel’s dialectical idealism and Marx’s dialectical materialism, Tillich labels his own thought *dialectical realism*. Wheat (1970) suggests that a better name for Tillich’s philosophical theology might be dialectical humanism since it presents the “ultimate concern” of religion as a concern for all of humanity.

To show how religious consciousness can transcend theism, Tillich employs a triadic dialectical process that moves from affirmation (yes) to negation (no) to the negation of the negation (a higher yes). This yes-no-yes dialectic mirrors the thesis-antithesis-synthesis format of the German dialectical tradition previously used by Marx, Hegel, and Fichte. According to Wheat (1970, 2012), Tillich presents a dialectic that moves from an unspecified affirmation of God (i.e., Yes to the God of theism) to a negation of theism (i.e., No to the theistic idea of God—atheism) to a negation of the negation of God (i.e., Yes to the God above the God of theism). Wheat (2012) presents Tillich’s yes-no-yes dialectic with the following two-concept dialectical process: (1) thesis- Yes to God + Yes to supernaturalism, (2) antithesis- No to God + No to supernaturalism, and (3) synthesis- Yes to God + No to supernaturalism (p. 44). It is this “God above God” revealed in the synthesis stage that Wheat (1970) interprets to be humanity, thus rendering Tillich’s philosophy intrinsically humanistic. Whether Marx and Tillich deliberately

use the two-concept dialectical format as Wheat claims remains debatable. It is clear, however, that Hegel's dialectical philosophy influenced their dialectical theories.

Table 1. Theories of Dialectic Listed by Philosophical Tradition and Philosopher

Philosophical Tradition	Philosopher	Theory of Dialectic
Ancient Chinese	Laozi	Opposite elements are conflicting and complementary; their interaction and interdependence create a holistic, dynamic, and harmonious system.
Ancient Indian	Buddha	Everything in the world is impermanent and interconnected.
	Nāgārjuna	The Middle way (i.e., a middle position between yes and no, A and not-A, existence and nonexistence) is the path to enlightenment.
Ancient Greek	Heraclitus	Nature is in a perpetual state of flux; everything is in the process of becoming and nothing has a fixed essence.
	Pyrrho	The suspension of judgment about the nature of reality is the key to achieving freedom from phenomenal influence (i.e., experiencing attachment or aversion to stimuli).
	Zeno	His paradoxes use a method of indirect proof to reveal contradictions in assumed theses about the nature of reality.
	Socrates	Wisdom is cultivated through a dialectical method called elenchus (i.e., question-and-answer argumentation).
	Plato	The true nature of reality can be discovered through an iterative process of dialectical reasoning.
	Aristotle	Dialectic is the skillful argumentation of contrary opinions represented by a thesis and antithesis.
German	Kant	The transcendental dialectic is a dialogue with the self in which individual reason confronts contradictions within itself and becomes conscious of its own finitude.
	Fichte	Dialectic is a systematic, triadic process in which an abstraction that is meant to be all-inclusive fails, an opposing idea arises in reaction, and a third idea reconciles the two. The process continues ad infinitum.
	Hegel	The triadic form thesis-antithesis-synthesis is a science of dialectical thought. The evolution of Spirit or the mind (i.e., Geist) toward self-realization (i.e., Absolute Knowing) exemplifies this movement.
	Marx	History is a dialectical progression through different modes of production driven by class struggles in the economic system.
	Tillich	Religious consciousness can transcend theism through a dialectical movement that culminates in the affirmation of a God above the God of theism.

Summary and Discussion

Beginning with ancient philosophy, the concept of dialectic has been synonymous with the idea of opposition. The characterization and treatment of oppositional relationships, however, differs across philosophical traditions (see Table 1). To ancient Chinese thinkers, contradictory elements in nature are complementary and integrable. They exist as part of a holistic and dynamic system in which contradiction and change are inevitable. For this reason, ancient Chinese philosophers view opposites in relative rather than absolute terms and regard the middle way as the path to wisdom. The theme of change is also present in the dialectical traditions of ancient India and Greece. Within ancient Buddhist and Hinduist texts and the fragments of the Greek Heraclitus, there are strikingly similar references to the impermanent state of nature and the lack of fixed essence. Additionally, the suspension of judgment, which characterizes the middle way, is evident in Buddhist philosopher Nāgārjuna's and Greek philosopher Pyrrho's writings. These earliest examples of dialectical thought in China, India, and Greece emphasize the transient and contradictory aspects of the natural world.

The next phase in the evolution of dialectic occurs with the famous Greek philosopher Socrates. According to Plato, Socrates developed a method of debate in which he reveals errors in arguments of others by asking questions that lead the respondents to contradict their original assertions. Plato, who originated the term dialectic, turns the question-and-answer model of Socrates from a method of exposing ignorance to one of pursuing knowledge about reality. Plato believes that at the end of an iterative process of reasoning through argumentation lies truth. In contrast, Aristotle sees dialectic as merely a skillful argumentation of contrary opinions. He claims scientific truth is only accessible through sense perception, experience, and the use of formal logic, not via dialectical reasoning. For Socrates, Plato, and Aristotle, dialectic is not

about recognizing contradictory elements in nature as it was for their predecessors and Eastern counterparts. Instead, the founders of Western philosophy are responsible for developing the conception of dialectic as a method of question-and-answer argumentation...although they disagreed as to its purpose.

The third phase in the development of dialectic in philosophy begins with 18th century German philosopher Kant who puts dialectic back into Western philosophy's lexicon. Kant's transcendental dialectic also inspired the German idealists and dialectical thinkers Fichte and Hegel. Fichte first introduced the now-familiar triadic dialectic. While he did not use the terms, the three-stage process became known as thesis-antithesis-synthesis. The triadic dialectical movement involves a reconciliation of two seemingly contradictory concepts, a thesis and an antithesis, to arrive at synthesis. Hegel expands on the philosophies of Kant and Fichte to trace the dialectical movement of Spirit or the mind to complete self-consciousness. Even though Hegel is neither the first nor the last great thinker to use dialectic, his conception is decidedly unique. His identification of antithetical conceptual pairs and use of various dialectical formats to arrive at synthesis have been emulated by Marx and Tillich, but not fully explicated until Wheat's 2012 book. Now that I have reviewed the origins and progression of dialectic in philosophy, we can delve into dialectic's more contemporary role in the social sciences. In the next chapter, I will discuss dialectical thinking as a psychological phenomenon and mostly-unexplored educational frontier.

Chapter 3: Dialectic in Psychology and Education

In the previous chapter, I traced the evolution of the concept of dialectic from its origins in ancient Chinese, Indian, and Greek philosophies through to its more modern interpretations in German philosophy. Within the last half-century, the concept of dialectic has reemerged—this time in the field of psychology. In the next section, I discuss the different conceptions of dialectic in cognitive and developmental psychology, social and cultural psychology, and educational psychology. I, then, review the more limited applications of dialectic in the field of education. In the concluding section of this chapter, I consider the commonalities across these various interpretations of dialectic and highlight an emerging triadic dialectical structure.

Psychological Theories of Dialectic

Beginning in the 20th century, psychologists have reinvented the concept of dialectic while maintaining a link to its philosophical origins. In cognitive and developmental psychology, the concept of dialectic appears as dialectical thinking—a mature stage of intellectual development. In social and cultural psychology, dialectic enters as a form of folk wisdom associated with East Asian cultures called naïve dialecticism. In educational psychology, dialectic presents as a personal epistemology associated with dialectical thinking. Below, I outline these overlapping, psychological conceptualizations of dialectic in turn.

Dialectical thinking as stage of intellectual development. Piaget (1952) developed the first and most famous theory of cognitive development. His theory posits the following four stages of development: (a) the sensorimotor stage (0-2 years), (b) the preoperational stage (2-7 years), (c) the concrete operational stage (7-11 years), and (d) the formal operational stage (11+ years). According to Piaget's theory of cognitive development, individuals understand the world around them using their senses and motor skills in infancy, through language and mental images

in toddlerhood and early childhood, via logical thinking about concrete objects in middle to late childhood, and by using abstract, scientific reasoning in adolescence and adulthood. A child progresses from one stage to the next by resolving disequilibrium. Piaget's theory proposes that when children experience contradictions in their environment, they assimilate the new information into an existing schema (i.e., a cognitive structure) and/or adjust their schemas to accommodate the new information. Piaget's theory of cognitive development has been widely cited and supported empirically, yet a number of psychologists (e.g., Arlin, 1975; Basseches, 1984; Kramer, 1983; Labouvie-Vief, 1980; Perry, 1970; Riegel, 1973; Sinnott, 1981; etc.) criticize the theory's neglect of intellectual development that occurs *after* adolescence. One such critic, Bruner (1959), suggests that a stage beyond formal reasoning might exist in adulthood for some scientists and intellectuals. Since then, cognitive and developmental psychologists have ventured to describe this hypothetical, fifth stage of intellectual development.

It may come as little surprise that a *German* psychologist by the name of Klaus Riegel introduced the concept of dialectic to psychology. Finding Hegel's philosophy in *Phenomenology of Spirit* a valuable model for the development of the mind, Riegel (1973) published a paper entitled "Dialectic Operations: The Final Period of Cognitive Development." In it he argues that development toward mature thought relies on a dialectic conceptualization of subject and object and of contradictory theories. This *dialectical thinking*, a term coined by Riegel, involves conceiving of all properties in their multitude of contradictory relations and complementary dependencies. He envisions dialectical thinking as a stage beyond Piaget's formal operational stage of cognitive development. Riegel critiques Piaget's theory for abandoning its dialectic foundation in the higher stages of cognitive development. He notes that the contradictory but complementary processes of assimilation and accommodation (described

above), which are so important in the sensorimotor stage of Piaget's theory, are mostly disregarded by Piaget in the preoperational stage. Instead, Piaget perceives development "as removing...inconsistencies and as reaching toward a coherent, noncontradictory mode of thinking," which Riegel (1973) states alienates mature thinking from thought's dialectic basis (p. 12). He insists that, though the *product* of thought may be (momentarily) stable structures, the *process* of thought itself is dialectical. According to Riegel (1973), creative, mature thought is produced by the "playful manipulations of contradictions and by conceiving issues integratively" (p. 22). On the other hand, formal operational thinking only produces abstract and decontextualized conceptions of reality. Thus, for Riegel, dialectical thinking represents a more advanced stage of intellectual development than does formal operations.

Following Riegel's proposal of a fifth stage of cognitive development, several other psychologists have theorized what characterizes mature thought. Among them, Arlin (1975) proposes a "problem-finding" stage after what she calls the "problem-solving" stage of formal operations. Another, Labouvie-Vief (1980), argues that adult cognitive development is marked by "logical relativism" (i.e., specialized reasoning to match an individual's various societal roles and contexts). Sinnott (1981), too, identifies relativistic reasoning, which was widespread among adults in her longitudinal study of aging, as representative of adult cognition. The study of postformal thought by psychologists returns to dialectical thinking with Basseches.

Since adults can typically address life's challenges in many ways, Basseches (1980, 1984) suggests that mature thought requires the ability to choose or coordinate between multiple, alternative systems—a task for which he deems formal operations inadequate. Instead, Basseches claims that dialectical thinking best reflects postformal, adult cognition. This is thinking that looks for, recognizes, and engages in inquiry instances of dialectic. Basseches (2005) defines

dialectic as “developmental transformation (i.e., developmental movement through forms) that occurs via constitutive and interactive relationships” (p. 50). Thus, a dialectical approach is one that emphasizes change, wholeness, and internal relations of phenomena in conceptual systems. To empirically test his claim that dialectical thinking describes adult intellectual development, Basseches (1984) developed a Dialectical Schemata framework consisting of 24 cognitive schemata organized into the following four categories: (a) motion-oriented schemata, (b) form-oriented schemata, (c) relationship-oriented schemata, and (d) meta-formal schemata. The *motion-oriented schemata* refer to fluidity in thought and attention to processes of change, such as the movement of thesis-antithesis-synthesis. The *form-oriented schemata* relate to recognition of elements within organized wholes/forms and assumption of contextual relativism. The *relationship-oriented schemata* concern conception of relationships between elements as constitutive and interactive. The *meta-formal schemata* involve recognition of relationships among forms and transformation of forms (i.e., an integration of the preceding three categories of schemata). Basseches (1984) conducted a study in which researchers interviewed a random sample of 27 participants (nine freshmen, nine seniors, and nine faculty members) at a small liberal arts college about their thoughts about the nature of education. Transcripts from these interviews were then coded using the Dialectical Schemata framework. The study revealed that “the faculty members as a group used a significantly broader range of elements of dialectical thinking than did the seniors as a group, who in turn used a significantly broader range than did the freshmen” (p. 156). These findings provide preliminary support for dialectical thinking as an indicator of mature cognition.

In a reconceptualization of the literature, Kramer (1983, 1989) names and describes three stages common to the various models of postformal intellectual development. She calls these

stages (a) absolutist thinking, (b) relativistic thinking, and (c) dialectical thinking. *Absolutist thinking*, which Kramer theorizes is found in early adolescence, is characterized by dualist, either/or thought with the goal of reductionism. This first stage is akin to Piaget's formal thinking. *Relativistic thinking*, in contrast, is marked by an understanding of knowledge as subjective and an acceptance of contradictions as inevitable. This second stage she believes develops in early to middle adolescence. *Dialectical thinking*, which may appear in late adolescence to emerging adulthood, is an integration of absolutism and relativism such that contradictions are viewed as part of a larger, comprehensive system. If I translate Kramer's model of postformal intellectual development into the language of Hegel's dialectic, then absolutist thinking is the thesis, relativistic thinking its antithesis, and dialectical thinking their synthesis.

Dialecticism as cultural thinking style. Dialectical thinking is also of interest to some social and cultural psychologists (see Spencer-Rodgers & Peng, 2018) who find that, on average, it is more common among East Asians than among Westerners. Social and cultural psychologists generally attribute the opposing thinking styles of the East and West to their divergent philosophical traditions. Peng and Nisbett (1999) term this dialectical thinking style prevalent among East Asians *naïve dialecticism*. Their use of "naïve" is meant to signify dialecticism as a form of folk wisdom that, through the dialectical themes present in Taoism and Buddhism, has become infused in East Asian cultures. Naïve dialecticism is characterized by (a) an expectation of change, (b) a tolerance of contradiction, and (c) a perception of interconnectedness (Li, 2018; Spencer-Rodgers, Anderson, Ma-Kellams, Wang, & Peng, 2018). Western cultures, on the other hand, tend to use a linear thinking style associated with Aristotelian formal logic. *Linear thinking* is governed by the following laws of formal logic introduced by Aristotle: (a) the law of identity

($A = A$), (b) the law of non-contradiction ($A \neq \neg A$), and (c) the law of the excluded middle ($X = A \text{ or } \neg A$) (Li, 2018; Peng & Nisbett, 1999). Linear thinking can be likened to Piaget's formal operations and Kramer's absolutism. Westerners usually expect stability or linear change while East Asians tend to see change as inevitable and cyclical. Whereas Westerners are more apt to reject contradiction and seek resolution, East Asians more readily accept contradictions as inherent and complementary aspects of existence. In contrast to Westerners who typically prefer an analytic, reductionist view of objects and ideas, East Asians are more likely to take a holistic, relational, and contextualized view (Spencer-Rodgers et al., 2018).

In an ever more interconnected and globalized world, Li (2018) emphasizes the need for a balanced, integrative approach to epistemology. *Epistemology* is a philosophical term related to "the origin, nature, limits, methods, and justification of human knowledge" (Hofer, 2002, p.4). As mentioned previously, the Western epistemological system is primarily based in Aristotle's formal logic while the Eastern epistemological system reflects ancient Eastern philosophical traditions. Li (2018) labels the Eastern epistemology *yin-yang balancing*, the three core tenets of which are (a) holistic content, (b) dynamic process, and (c) duality-rooted integration. According to Li, yin-yang balancing is a holistic approach because it recognizes the complex interdependence and interpenetration between opposite elements. It also recognizes dynamic processes by acknowledging the interaction and intertransformation between opposite elements. Lastly, yin-yang balancing views opposites as both conflicting and complementary via mutual negation and mutual affirmation (i.e., existing in a duality-rooted integration). One might suggest that Hegel's theory of dialectic is akin to yin-yang balancing, but Li would disagree. He distinguishes Western epistemology as a philosophy of knowledge that focuses on the evaluation and consistency of knowledge. Eastern epistemology, on the other hand, he views as a

philosophy of wisdom, more concerned with the creation and completeness of knowledge. For Li (2018), “Hegel’s dialectical logic accepts only temporary completeness [by allowing for paradox between thesis and antithesis], but embraces ultimate consistency [by resolving paradox through synthesis] at the expense of ultimate completeness” afforded by yin-yang balancing alone (p. 44). Nonetheless, Li acknowledges both Eastern and Western logical systems as necessary for learning. For this reason, he proposes a *geocentric meta-paradigm* that values both inductive reasoning and synthesis *and* deductive reasoning and analysis. This balancing of two seemingly-opposite epistemologies through an integrative approach is itself a Hegelian dialectical process ending in a form of synthesis.

Dialectic as model of epistemological development. At the intersection of philosophy, psychology, and education lies the study of personal epistemology. *Personal epistemology* refers to “how the individual develops conceptions of knowledge and knowing and utilizes them in developing understanding of the world” (Hofer, 2002, p. 4). More succinctly, personal epistemology is a person’s way of knowing. Our epistemological beliefs influence how we make meaning of information and experiences in our daily lives. Thus, personal epistemology is a psychological construct with powerful educational implications. It stands to reason that a better understanding of how people think and reason about knowledge could lead to improved approaches to learning and instruction (Pintrich, 2002).

Perry shifts the study of adult cognition from a focus on the development of operational cognition obvious in Piaget’s work to a focus on changes in epistemological assumptions (Kallio, 2011). Perry (1970) conducted a longitudinal study of Harvard students from their freshman to senior years in which he asked them to discuss their educational experiences. From their interviews across the four years, Perry (1970) noticed a progression in the college students’

epistemological and meta-ethical assumptions, which he represents with nine ordered positions. Perry's nine-position scheme is the movement through the following four stages: (a) dualism, (b) multiplicity, (c) relativism, and (d) commitment. Students in the *dualism* stage see the world in terms of good and bad, right and wrong. They assume that truth is absolute, every problem is solvable, and that knowledge is handed down by authority figures. Students at the *multiplicity* stage begin to acknowledge gray areas where there is uncertainty and diversity of opinion, although they have not yet determined how to make evaluative judgments of the various views. In contrast, students at the *relativism* stage recognize that they can compare and evaluate the plurality of points of view in a field within their respective contexts. The *commitment* stage involves the student making a conscious, personal commitment to a set of opinions, values, and interests based on her or his learning and experiences and accepting responsibility for these subjective choices. Over the past few decades, several educational psychologists have continued Perry's work and recommended their own developmental models of personal epistemology.

Hofer and Pintrich's (1997) initial literature review of epistemological theories eventually led to the publication of their 2002 edited book *Personal Epistemology*, a comprehensive guide to the theoretical and methodological approaches to the study of personal epistemology. Both the literature review and book focus on the five following theoretical models: (a) Perry's (1970) scheme (discussed above), (b) King and Kitchener's (1994) Reflective Judgment Model, (c) Belenky, Clinchy, Goldberger, and Tarule's (1986) *Women's Ways of Knowing*, (d) Baxter-Magolda's (1992) *Epistemological Reflection*, and (e) Schommer-Aikins' (1994) *Epistemological Belief System*. While these epistemological models disagree as to the exact dimensions of personal epistemology and whether one's epistemological beliefs reflect a stage or state, they contain parallel developmental trajectories. In Hofer's (2002) introductory chapter,

she notes that this common path is a “movement from a dualist, objectivist view of knowledge to a more subjective, relativistic stance and ultimately to a contextual, constructivist perspective of knowing” (p. 7). The models seem to agree that epistemological thought gains in sophistication as it moves from an assumption of objectivity to one of subjectivity to one that balances objectivity and subjectivity.

Kuhn and Weinstock (2002) expand on this characterization by identifying the following four levels of epistemological understanding: (a) the realist, (b) the absolutist, (c) the multiplist, and (d) the evaluativist. According to Kuhn and Weinstock, children around the age of three are *realists* who view assertions that people make as a mirror of objective reality, meaning they do not yet recognize that assertions can be false or merely the expression of someone’s beliefs. This changes with the *absolutist* who compares knowledge claims to an alleged objective external reality to determine their truth or falsity. Children at this level assume that a false assertion is the result of misinformation or misunderstanding. Beginning in late childhood or adolescence, the *multiplist* level emerges, which understands conflicting assertions as the outcome of subjective opinions not true and false statements. People at the multiplist level view varying interpretations of reality as equally valid since they reflect everyone’s unique perspective and personal attempt at meaning-making. Kuhn and Weinstock (2002) describe the movement from the multiplist to evaluativist level of epistemological understanding as “the most fragile developmental transition—the one most likely never to be achieved” (p. 126). Like the postformal stage of intellectual development discussed above, the evaluativist level of epistemological understanding is a mark of *mature* thought that not all adults reach. The *evaluativist* acknowledges that, although people are entitled to their own opinions and perspectives, one can still compare and evaluate other people’s views according to criteria and evidentiary support. In this way, the

evaluativist integrates the objectivist and subjectivist dimensions of knowing. In Hegelian terms, the objectivist-dominant, absolutist level is the thesis; the subjectivist-dominant, multiplist level is the antithesis; and the balanced evaluativist level is the synthesis of epistemological understanding.

Educational Applications of Dialectic

The term dialectic shows up considerably less in the educational literature. In short article published in 1911, the American educational philosopher John Dewey insinuates that dialectic could be useful in the construction of educational theory (George, 1973). As he began to embrace empirical naturalism, however, Dewey became much more critical of dialectical methods. In Dewey's opinion, the Hegelian dialectic's non-empirical manner of dealing with process and change makes it inadequate as a method of inference. Still, Dewey recognizes dialectic's utility as a form of discourse for understanding and managing paradoxical experiences (George, 1973). From this assessment, it seems a dialectical approach to paradox may help to resolve instances of disequilibrium à la Piaget. If resolution of disequilibrium is a sign of cognitive development, then it is worthwhile to consider the educational value of a dialectical approach to learning.

Other educational philosophers the concept of dialectic influenced include Paulo Freire and, his student, Moacir Gadotti. Au's (2007) textual analysis of Freire's work demonstrates a strong link between Freire's critical, liberatory pedagogy and Marx's dialectical materialism. Similarly, Gadotti (1996) promotes Marxism as a valid paradigm on which to found a critical theory of education, one which he terms pedagogy of praxis. Both Freire and Gadotti base their pedagogies on the Marxist belief that dialectics can transform the material world. A dialectical philosophy of education like Freire's or Gadotti's, for instance, advocates for teachers to

acknowledge the dialectical roles of teacher as student and student as teacher in an effort to transform education as a whole.

The paradoxes of teaching and learning have caught the attention of other philosophers of education as well. Elbow (1986) encourages educators to embrace the contraries of their roles as both teacher and evaluator/credit-giver. Likewise, Palmer (1998) insists that teachers be cognizant of the duality embedded in teaching, such as the experiences of familiarity and novelty, security and insecurity. Van Manen (1991) and Moore (1998) both note that a tactful, competent teacher is one who can shift easily between and hold in balance cognition and emotion and firmness and warmth with students. The insights of Freire, Gadotti, Elbow, Palmer, Van Manen, and Moore all represent ways to think dialectically about education. Alternatively, some scholars have considered how to promote dialectical thinking in educational environments.

Basseches (1984, 2005) states that dialectic, when viewed as a postformal stage of intellectual development, is a way of thinking whose development may be facilitated by certain conditions and/or contexts. He suggests that institutions of higher education may be particularly well-suited environments for such personal growth. Basseches hypothesizes that dialectical thinking is most likely to develop in educational communities with the following five characteristics. First, the educational environment must present its members with “multiple justifiable coherent ways of interpreting facts based on diverging assumptions” (i.e., multiple frames of reference) that can be contrasted (Basseches, 1984, p. 308; Basseches, 2005, p. 59). Second, the institution must present members with alternative research paradigms that are open to critical appraisal and comparison “based on their appropriateness to various human goals” (p. 308, p. 60). Third, to avoid leaving students in the “transitional swamps of relativism,” Basseches (1984, 2005) recommends highlighting the fact that “advances in human knowledge

occur when people succeed in synthesizing valuable aspects of different perspectives so that they function as a whole” harmoniously (p. 309, p. 60). Fourth, although multiple, conflicting points of view are facts of life, they should be presented as “crucial moments in dialectical processes” that represent “an epistemological challenge” for both students and teachers (p. 309, p. 60). Fifth, Basseches (1984, 2005) emphasizes the importance of personal support for the development of dialectical thinking. Teachers must acknowledge and share in the pain and struggle their students (and they) experience as a seeker of truth.

A few educational theorists and psychologists have considered how teachers can incorporate dialectical thinking into classroom learning. Nelson, Palonsky, Carlson, and McCarthy have produced eight editions of *Critical Issues in Education*, which takes a dialogic and dialectic approach to the study of educational issues. Each chapter focuses on a current and pervasive debate in education with an essay presenting each of two divergent positions on the given topic. The authors hope their framework stimulates critical thinking, dialogue, and dialectic reasoning among readers and, ultimately, promotes social improvement. Nelson, Carlson, and Palonsky (1993) contend that the virtue of dialectical thinking is that “through reasoned debate, internally and with others, that we refine and improve our ideas” (p. x). In the most recent edition, Nelson, Palonsky, and McCarthy (2013) explain that “as with most educative practices, it is not the finding of predetermined right answers but rather the process of thinking that is most important. A right answer is good for solving a single problem, but a good process is useful for many problems” (p. 8). They attest that dialectic reasoning is particularly useful to the study of complex social problems like those found in education.

Since dialectical thinking conceptualizes knowledge as an ever-changing, evolution of ideas, Sternberg (1998) recommends it as a useful tool in teaching about the history of

psychology. As opposed to the traditional teaching model where students learn about past pioneers in the field and only jump to the present at the end of their single, obligatory history course, Sternberg insists a dialectical method is conceptually continuous with the past. He suggests three potential ways to incorporate dialectical thinking into a psychology course. One option is for teachers to present the evolution of ideas in the field from thesis to antithesis to synthesis. Sternberg offers the following as an example of dialectic in models of psychotherapy: (1) thesis- psychoanalysis, (2) antithesis- behavioral therapy, and (3) synthesis- cognitive-behavioral therapy. Another approach he recommends is to have groups of students work together to either trace the dialectical progression of a given idea from the present to the past or from the past to the present. The third option is for students to work independently on papers or projects to demonstrate their understanding of dialectic in psychology. Sternberg (1998) contends that integrating dialectical thinking in the classroom gives students “a newfound respect for the history of any field,” helps them view the present “as part of an ongoing rather than completed process,” facilitates critical thinking, and encourages students to see their role in the future of the field (p. 179).

After his brief article on dialectic as a tool for teaching psychology, Sternberg (2001) went on to propose a new teaching approach he calls the balance theory of wisdom. In brief, Sternberg (2001) defines wisdom as the application of knowledge mediated by values toward the achievement of a common good through a balance of intrapersonal, interpersonal, and extrapersonal interests. Among his sixteen principles of teaching for wisdom, Sternberg (2001) lists dialectical thinking. Kuhn and Udell (2001) critique Sternberg’s proposal, calling it “overly bold” (p. 261). Instead of undertaking the monumental task of teaching wisdom itself, Kuhn and Udell (2001) suggest that “educational efforts may be better focused on the more modest goal of

teaching the *tools* for wisdom” (p. 261). If thinking effectively is the path to wisdom, then they say schools should focus on promoting students’ intellectual development. In a return to our discussion on personal epistemologies, Kuhn and Udell (2001) indicate that the path to wisdom is, if not the same path, at least parallel to the path one takes from a multiplist to an evaluativist level of epistemological understanding. Still, an educational method for moving someone along this so-called “path to wisdom” remains largely untheorized. Might a dialectical approach to learning be that method?

Summary and Discussion

I have now reviewed the many and varied conceptualizations of dialectic throughout the fields of philosophy (in chapter two), psychology, and education. As Grossmann (2018) notes, the multitude of definitions of dialectical thinking “build on the philosophical heritage of both Hegelian dialectic and (to a lesser extent) Marxist dialectical materialism, and share a great deal in common with the treatment of dialecticism in the classic Indian, (some) Buddhist, and Taoist philosophies” (p. 147). Moreover, as Paletz, Bogue, Miron-Spektor, & Spencer-Rodgers (2018) observe, “the literature on dialectical thinking...is diverse and does not generally communicate across subdisciplines” (p. 302). Fortunately, this review of the literature reveals some parallels and overlaps among the various conceptions of dialectic and developmental trajectories.

Across the subdisciplines of psychology, a common triadic dialectical progression (i.e., thesis-antithesis-synthesis) of ways of thinking and knowing takes shape (see Table 2). The thesis is a thinking/knowing style described as formal operational, absolutist, dualistic, objectivistic, and linear. The antithesis is a thinking/knowing style characterized by relativism, multiplicity, and subjectivism. The synthesis is a thinking/knowing style that is dialectical, evaluativist, holistic, and constructivist in nature. This synthesis balances objectivity and

subjectivity and integrates absolutism and relativism. In the next chapter, I present a new theory of dialectic and further develop this dialectical progression of intellectual and epistemological development in what I call a dialectical model of knowing.

Table 2. Theses, Antitheses, and Syntheses Listed by Psychology Subdiscipline and Theorist

Psychology Subdiscipline	Theorist	Thesis	Antithesis	Synthesis
Cognitive & Developmental	Piaget	formal operations		
	Riegel			dialectical thinking
	Arlin	problem solving	problem finding	
	Labouvie-Vief		logical relativism	
	Sinnott		relativistic reasoning	
	Basseches			dialectical thinking
	Kramer	absolutist thinking	relativistic thinking	dialectical thinking
Social & Cultural	Peng & Nisbett	linear thinking	naïve dialecticism	
	Li	Western epistemology	Eastern epistemology	geocentric meta paradigm
Educational	Perry	dualism	multiplicity	relativism
	Hofer	objectivism	subjectivism	balance
	Kuhn & Weinstock	absolutist	multiplist	evaluativist

Chapter 4: Toward a Viable Theory of Dialectic

In the preceding chapters, I reviewed various theories of dialectic and dialectical thought in the fields of philosophy, psychology, and education. With this chapter, I propose a new theory of dialectic—one that unifies the many overlapping conceptualizations of dialectic, clarifies the often-mystifying construct, and, most importantly, inspires dialectical thought. Indeed, the very purpose of this dissertation is to decode the esoteric concept of dialectic and, in so doing, unveil its potential utility and broad applicability. I continue to focus on the former here before turning to the latter in the concluding chapter of this dissertation.

Underlying Framework

Below, I provide a streamlined definition of dialectic. Then, I offer a reinterpretation of Hegel's dialectical format and introduce the two-dimensional circumplex model. Together these function as the underlying framework for my new theory of dialectic—the *dialectical circumplex model*. This dialectical circumplex model displays my approach to dialectic in a conceptual model. This model is the foundation for a dialectical model of knowing, which I describe at the end of this chapter, and a dialectical method for learning, which follows in the final chapter of this dissertation.

Definition of dialectic. A unified theory of dialectic starts with a clear and concise definition of dialectic. It should be inspired by but improve upon previous conceptions of dialectic. In the literature, philosophers and theorists alternatively reference the concept of dialectic using the nouns “dialectic” or “dialecticism,” the adjective “dialectical,” and/or the adverb “dialectically.” While all of these terms derive from the same overarching concept—the dialectical perspective—each has a slightly different connotation. Basseches (2005) astutely observes that the dialectical perspective is comprised of both an ontological view about the

nature of existence and an epistemological belief about knowledge and ways of knowing. Therefore, before defining these terms, I must describe the ontological and epistemological components of the dialectical perspective.

First, my proposed theory of dialectic assumes a *dialectical ontology*—the belief that myriad pairs of opposing, but complementary forces constitute the world in which we live. It is the interaction of these opposite elements that produces what we call dialectics. *Dialectics* are ever-present, dynamic processes that underlie complex phenomena in the natural and social worlds. A dialectic consists of opposing, interactive forces that create an emergent and complex system. A phenomenon is described as *dialectical* if it involves the interplay of contradictory, but interdependent elements.

Second, my proposed theory of dialectic adheres to a *dialectical epistemology*—the view that knowledge is a tentative product of an iterative, constructive, and unending process in which the knower employs a holistic and critical approach to understanding the world. This approach to knowledge balances objectivity and subjectivity. In short, the way of knowing, according to this point of view, is to think dialectically. Thinking *dialectically* involves (a) the identification of elements in the natural or social worlds (e.g., things, ideas, concepts, etc.) with oppositional but mutually-dependent relationships; (b) the appreciation of how these complementary opposites comprise a meaningful whole (i.e., a dynamic, complex system); and (c) the utilization of this knowledge to critically reason about and holistically evaluate one's world. I predicate this theory of dialectic on the notion that one can gain richer, more integrated knowledge about any given phenomenon by considering how it is either a product of a dialectic or part of a dialectical relationship/system. Next, to further develop my theory of dialectic, I briefly review Hegel's dialectical philosophy and describe my reinterpretation of his dialectical format.

Reinterpretation of Hegel's dialectic. The dialectical circumplex model I present in this chapter acts as a reinterpretation of Hegel's dialectical philosophy. You may recall from chapter two that Hegel's conception of dialectic is a progression of ideas from thesis to antithesis to synthesis. Among Hegel's many examples of dialectic, Wheat (2012) identifies three main dialectical formats to arrive at conceptual synthesis. The first format achieves synthesis by recognizing the antithesis as really the thesis in disguise. If the thesis is A and the antithesis is B, then the synthesis is $A = B$ (see Figure 1). The second format arrives at synthesis by acknowledging the thesis as a composition of the antithesis. If the thesis is A and the antithesis is B, then the synthesis is A composed of B (see Figure 1). It is the third dialectical format, however, that inspires Marx's dialectical materialism, Tillich's dialectical realism, and, now, my dialectical circumplex model (Wheat, 2012).

Hegel's third dialectical format involves a thesis and antithesis that oppose each other along two dimensions. This creates double opposition between the thesis and antithesis. The synthesis in this dialectical format integrates or reconciles the thesis and antithesis by combining an element from both. This dialectical format features a thesis, antithesis, and synthesis composed of two concepts each. If the thesis is $A + B$ and the antithesis is $C + D$ where C is the opposite of A and D is the opposite of B, then the synthesis is either $A + D$ or $B + C$ (see Figure 2). Notice, the synthesis cannot consist of the pairs of opposites $A + C$ or $B + D$. Yet, Wheat's (2012) description of the two-concept dialectical format does not clearly state which of the combinations (i.e., $A + D$ or $B + C$) is the *true* synthesis. Rather, he surmises from the many Hegelian dialectical examples that the selected synthesis is the combination that maximizes the benefits or strengths of the thesis and antithesis ($A + D$ in Figure 2 and Figure 3). Neither Hegel nor Wheat explain the purpose or meaning of the alternative, leftover synthesis ($B + D$ in Figure

3). Presumably, the less desirable, rejected synthesis either consists of the weaker elements of the thesis and antithesis or represents an unfavorable combination of the thesis and antithesis. As it stands, the Hegelian thesis-antithesis-synthesis dialectical method does not account for the alternative synthesis produced by this two-concept dialectical format. Indeed, the two-dimensionality of this particular dialectical format suggests that a tetradic rather than a triadic form would produce a more accurate depiction of this type of dialectic (see Figure 3). For this reason, I explore the possibility of representing dialectic with a tetradic form in the following sections beginning with an overview of the two-dimensional circumplex model.

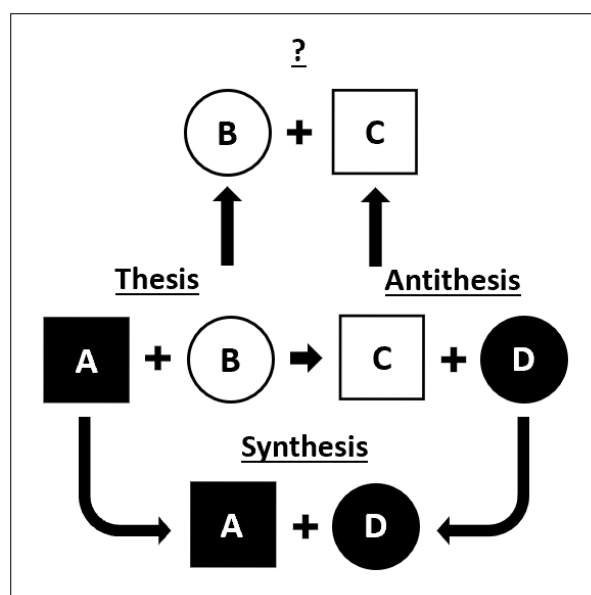


Figure 3. A diagram of Hegel's two-concept thesis-antithesis-synthesis dialectical format presented in tetradic form. This tetradic dialectical format includes the alternate synthesis "B + C" represented by a white circle and white square, the thesis "A + B" represented by a black square and a white circle, the antithesis "C + D" represented by a white square and a black circle, and the synthesis "A + D" represented by a black square and a black circle.

Introduction to two-dimensional circumplex models. The two-dimensional circumplex model is a conceptual model commonly used in the social sciences. The following quote from Linde (2003) explains how social theorists conceptualize the dimensions of this model:

The use of ‘dimensions’ in social science is a metaphor in which social phenomena are placed in positions just as points are in mathematics of space. When dimensions are used in social science, the end points of the dimensions are usually given designations that are supposed to be opposites of each other. (p. 38)

In terms of its structure, a two-dimensional circumplex model typically consists of a circle with one set of perpendicular lines dividing it into four quadrants. Each line symbolizes a single dimension. The opposite poles of a line (i.e., its endpoints) represent a pair of conceptual opposites. For example, if one dimension of the model is temperature, then the poles of that line would be hot and cold. The perpendicular lines effectively separate the circumplex model into four overlapping semicircles each defined by a single pole. The poles of one line/dimension define the top half and bottom half while the poles of the other line/dimension define the left half and right half. If the vertical line of a circumplex model represents the dimension of temperature and the top pole is “hot” and the bottom pole is “cold,” then the top half of the model is defined as hot and the bottom half is defined as cold (see Figure 4). The overlap of these four semicircles/halves results in four quadrants: top-left, top-right, bottom-right, and bottom-left. The location of each quadrant within the model dictates how a point in that quadrant is defined along the two dimensions.

The use of two-dimensional circumplex models to represent natural and social phenomena dates back to ancient times. The earliest Greek philosophers Thales, Anaximander,

and Anaximenes recognized four main elements of the world: water, earth, air, and fire (Eysenck, 1969). From there, the ancient Greeks sought to describe everything in the world in terms of four opposites related to these elements—the hot and the cold, the dry and the wet (Lloyd, 1964). For example, Aristotle (trans. 1930) describes fire as hot and dry, air as hot and moist, water as cold and moist, and earth as cold and dry. If one were to represent Aristotle’s theory in a two-dimensional model, hot and cold would represent poles of one dimension and dry and wet the poles of the second dimension (see Figure 4). Air, fire, earth, and water would occupy the top-left, top-right, bottom-right, and bottom-left quadrants, respectively.

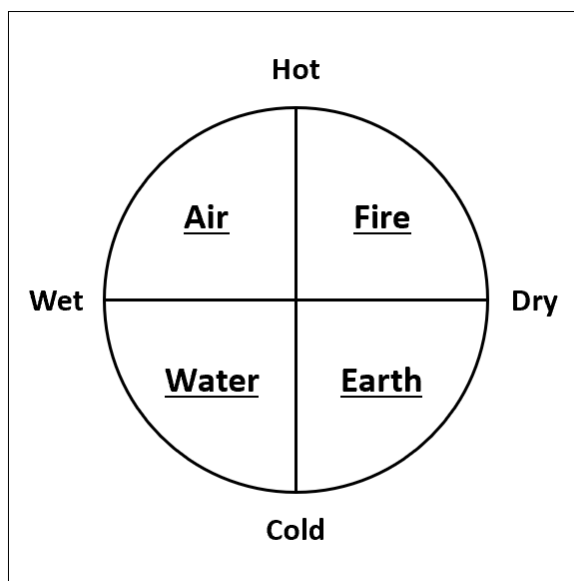


Figure 4. Two-dimensional circumplex model based on Aristotle’s conception of the four elements of the world. The elements are defined along two dimensions such that “Air” occupies the quadrant defined as hot and wet, “Fire” occupies the quadrant defined as hot and dry, “Earth” occupies the quadrant defined as cold and dry, and “Water” occupies the quadrant defined as cold and wet.

Hippocrates elaborates on this model further to identify what he contends are the four humours (i.e., fluids) of the body: blood, yellow bile, black bile, and phlegm. Then, based on Hippocrates’ theory of humours, Galen developed the first personality theory (Eysenck, 1969).

Galen theorizes that a preponderance of a particular bodily humour results in a specific temperament. Roback (1931) summarizes Galen's four types of individuals as follows:

The sanguine person, always full of enthusiasm, was said to owe his temperament to the strength of the blood, the melancholic's sadness was supposed to be due to the overfunctioning of the black bile, the choleric irritability was attributed to the predominance of the yellow bile in the body, while the phlegmatic person's apparent slowness and apathy were traced to the influence of the phlegm. (as cited in Eysenck, 1969, p. 12)

The philosopher Kant expands upon Hippocrates' work to create human typology descriptions that were widely read and accepted throughout Europe.

From Galen's and Kant's characterizations of the four temperaments, Wundt, the father of modern psychology, postulates a categorical system. Wundt's (1903) circumplex model maps the four temperaments along two dimensions to show "choleric and melancholics are inclined to strong affects, while sanguinics and phlegmatics are characterized by weak ones. A high rate of change is found in sanguinics and choleric, a slow rate in melancholics and phlegmatics" (as cited in Eysenck, 1969, p. 14). Figure 5 is an adapted version of Eysenck's (1969) diagrammatic representation of the classical theory of the four temperaments as described by Kant and Wundt. This circumplex model features a dimension for emotionality with poles "emotional" and "unemotional" and a dimension for changeability of emotion with poles "unchangeable" and "changeable." Although social scientists no longer attribute human types to the bodily humours, they continue to use two-dimensional circumplex models to conceptualize psychological and social constructs such as personality (e.g., Eysenck & Eysenck, 1969; Holland, 1973), emotion (e.g., Russell, 1980; Schlosberg, 1952), and various other interpersonal behaviors.

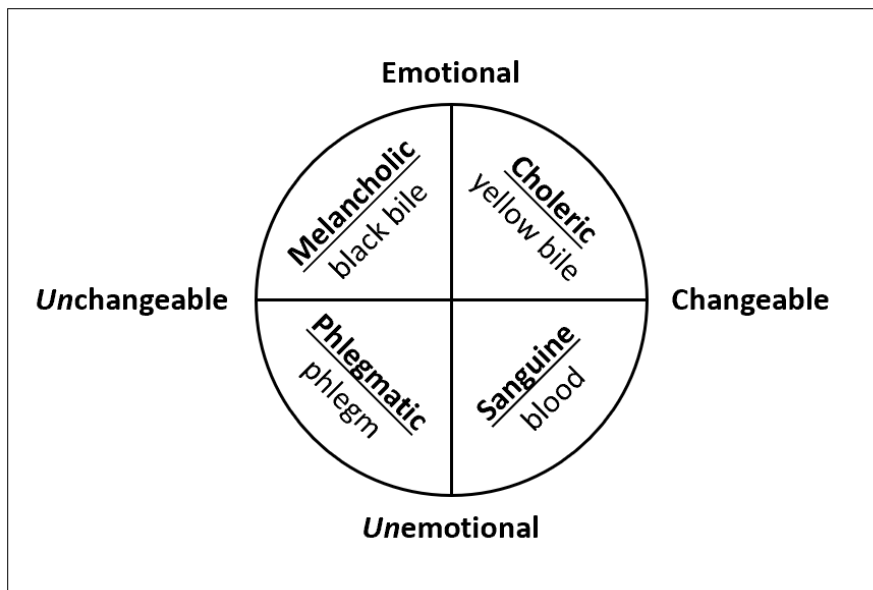


Figure 5. Two-dimensional circumplex model adapted from Eysenck's (1969) representation of the classical theory of the four temperaments. The temperaments are defined along two dimensions such that "Melancholic" occupies the quadrant defined as emotional and unchangeable, "Choleric" occupies the quadrant defined as emotional and changeable, "Sanguine" occupies the quadrant defined as unemotional and changeable, and "Phlegmatic" occupies the quadrant defined as unemotional and unchangeable.

The Native American medicine wheel is another example that dates back to ancient times of a two-dimensional circumplex model used to represent natural phenomena. Medicine wheels, in the physical sense, exist across North America—the most famous being the astronomically-aligned Bighorn Medicine Wheel in Wyoming. These stone circles, and the periodic circular lodge, signify sacred places and ceremonial centers of culture (Grigas, 1993). The medicine wheel symbol is depicted by a circle sectioned into four quadrants colored white, yellow, red, and black. Each quadrant is also associated with one of the four cardinal directions and the four elements of nature (see Figure 6). Depending on cultural tradition, the quadrants of the medicine wheel may also symbolize the seasons of nature (spring, summer, fall, and winter); stages of life (birth, youth, middle age, and death); aspects of health (physical, emotional, mental, and spiritual); or virtues of human nature (strength, kindness, truth, and sharing) (Grigas, 1993). The

quadrants of the medicine wheel are not separate entities, but elements of a dynamic, cyclical whole marked by symmetry, balance, and harmony. Grigas (1993) states that the medicine wheel “gives rise to the idea of that which brings into existence, vivifies all forces involved in any given process, carrying along with it forces that would normally act against one another” (p. 13). This description aligns with the dialectical ontological view that existence is a dynamic process driven by opposing, but complementary forces. The epistemology of the medicine wheel is also apparent in this quote from Grigas (1993):

[The medicine wheel] is a system used as a key to unlock mysteries, whether they be in the night sky, on the earth or within the self...The symbol is useful insofar as how it acts as a trigger to make one take action, to use the wheel as a tool of discovery....The true magic of the wheel or the ‘medicine’, lies in its ability to be dynamic and adaptable to fit a number of situations. (p. 24)

The medicine wheel, just like dialectical thinking, is a method for gaining insight into problems and obtaining a deeper, more holistic comprehension of the world. In the next section, I combine the principles of two-dimensional models with my reinterpretation of Hegel’s dialectic to develop a dialectical circumplex model.

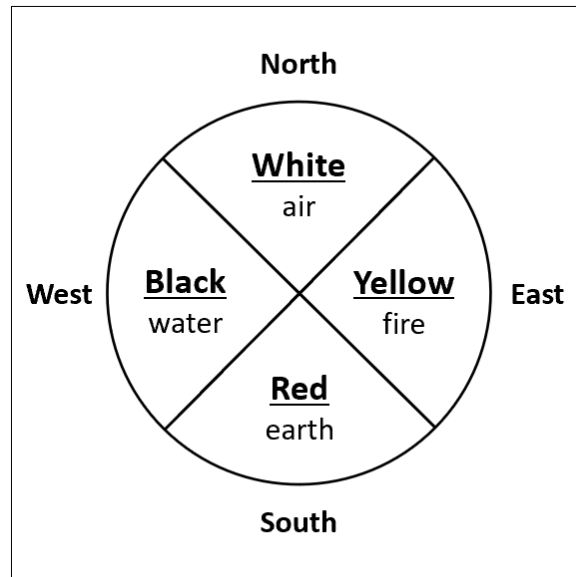


Figure 6. The Native American medicine wheel based on Grigas' (1993) description. The wheel consists of a circle with a cross inside. Each of its four quadrants corresponds with one of four colors, cardinal directions, and elements of nature. Commonly, the "White" quadrant represents the North and air, the "Yellow" quadrant represents the East and fire, the "Red" quadrant represents the South and earth, and the "Black" quadrant represents the West and water.

Conceptual Model of Dialectic and Its Application

Although Hegel's dialectic is traditionally presented in triadic form (i.e., thesis-antithesis-synthesis), I contend that his two-concept dialectical model is actually more helpfully represented in a tetradic form. A two-dimensional circumplex model, specifically, is uniquely capable of representing the double opposition between thesis and antithesis distinct to this dialectical format. Below, I describe my new theory of dialectic—namely, the dialectical circumplex model.

Dialectical circumplex model. As described above, a circumplex model is a circle divided into four quadrants by two perpendicular lines that each represent a single dimension. The poles of each line represent conceptual opposites. Thus, each quadrant is defined by one pole from each of the two dimensions. To demonstrate the applicability of the circumplex model

to the Hegelian two-concept dialectical format, I use the now-familiar example where the thesis = $A + B$ and the antithesis = $C + D$ (where C is the opposite of A and D is the opposite of B). In this case, one dimension of the circumplex model is defined by the poles A and C and the other dimension is defined by the poles B and D . As shown in Figure 7, the thesis and antithesis occupy opposite quadrants (top-left and bottom-right, respectively). The synthesis, which occupies the top-right quadrant, is defined as $A + D$. When the traditional triadic form (i.e., thesis-antithesis-synthesis) is applied to the model, an unaccounted for or unnamed quadrant in the bottom-left defined as $B + C$ remains (see in Figure 7).

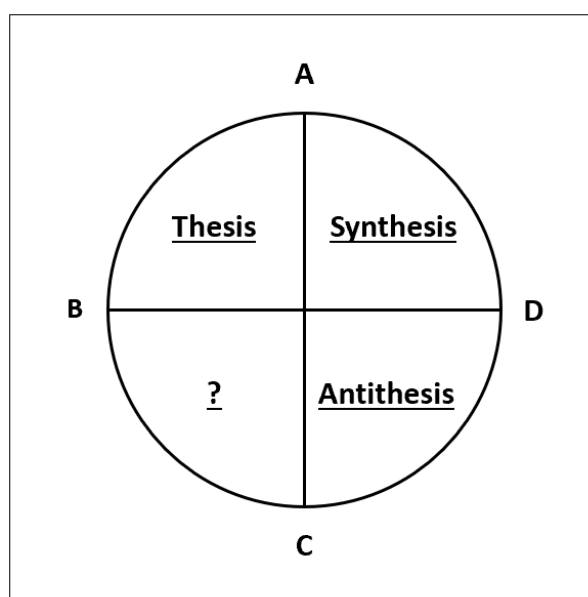


Figure 7. A circumplex model of Hegel's two-concept thesis-antithesis-synthesis dialectical format. This dialectical model is defined by two dimensions where A and C are opposite poles of a single dimension and B and D are opposite poles of a second dimension. The thesis occupies the quadrant defined as A and B , the antithesis occupies the quadrant defined as C and D , the synthesis occupies the quadrant defined as A and D , and the "?" occupies the unnamed quadrant defined as B and C .

Based on the definition of dialectic I outlined earlier in this chapter, this two-dimensional circumplex model of dialectic represents a whole not discrete moments in time. Therefore, the Hegelian conception of thesis, antithesis, and synthesis as the first, second, and third stages in a

process no longer pertains. It is more appropriate, then, to conceptualize the thesis, antithesis, and synthesis as coexistent components of a greater dialectical system. A *dialectical system* is an emergent, complex, and dynamic whole generated by the simultaneous interactions between conflicting and complementary forces (i.e., dialectical relationships between elements). The *thesis*, the concept occupying the top-left quadrant of the model, is merely a part of this whole. The *antithesis* is a contradictory concept located in the bottom-right quadrant, opposite to the thesis. The *synthesis*, which occupies the top-right quadrant, combines an element from the thesis and an element from the antithesis to form an integrative concept. I propose that the bottom-left quadrant, which represents the alternative but less desirable synthesis, be labeled the *diathesis* (see Figure 8). Diathesis is a Greek word meaning a predisposition, vulnerability, or tendency toward a particular state or condition. In the fields of medicine and psychology, diseases and disorders with heritable aspects are sometimes described as diathetic. For instance, an individual with an asthmatic diathesis has the tendency toward chest tightness and shortness of breath but may never experience these symptoms unless triggered by an allergen or irritant in their environment (Nicholls, 1928). I have chosen the term diathesis for two reasons. First, it implies that this is a concept to which one is predisposed or susceptible. Second, it shares its root word “-thesis” with the other parts of the tetradic dialectical system. Unlike the true or chosen synthesis—the more favorable amalgam—the diathesis is an inferior combination of elements from the thesis and antithesis. Figure 8 summarizes my proposed dialectical circumplex model and its corresponding tetradic dialectical format (i.e., thesis-antithesis-synthesis-diathesis). Together the thesis, antithesis, synthesis, and diathesis form a dialectical system in which all elements are concurrently existing and continually redefining each other.

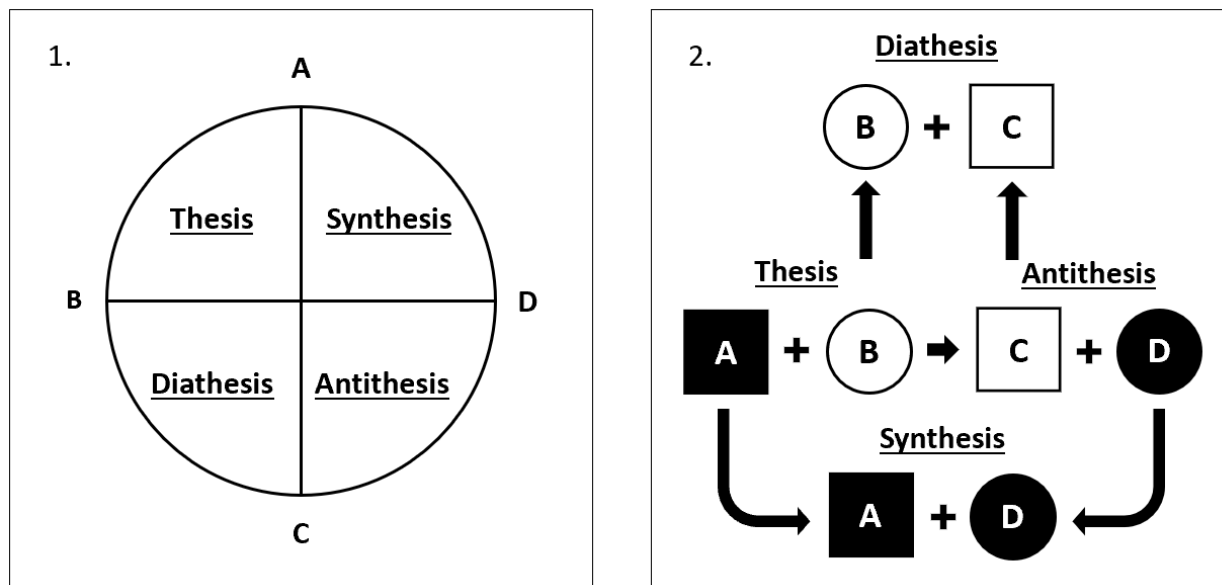


Figure 8. The thesis-antithesis-synthesis-diathesis dialectical format. 1. This dialectical model is defined by two dimensions where A and C are opposite poles of a single dimension and B and D are opposite poles of a second dimension. The thesis occupies the quadrant defined as A and B, the antithesis occupies the quadrant defined as C and D, the synthesis occupies the quadrant defined as A and D, and the diathesis occupies the quadrant defined as B and C. 2. This dialectical format shows the thesis “A + B” represented by a black square and a white circle, the antithesis “C + D” represented by a white square and a black circle, the synthesis “A + D” represented by a black square and a black circle, and the diathesis “B + C” represented by a white circle and white square.

Dialectical model of knowing. I intend my new theory of dialectic to be more than just a reinterpretation of Hegel’s dialectic. Indeed, the above dialectical circumplex model forms the basis for a dialectical model of knowing and a dialectical method for learning. The first I present here and the second I discuss in the last chapter of this dissertation. My *dialectical model of knowing* is essentially a theory of epistemology displayed using the newly-developed dialectical circumplex model. In Table 2 of the previous chapter, I summarize the theses, antitheses, and syntheses among the various theoretical models in cognitive, developmental, social, cultural, and educational psychology. To display this information in the dialectical circumplex model, I need to compare and contrast the varying conceptions and organize the sometimes-divergent,

sometimes-converging information into a meaningful whole. This whole is a dialectical model of knowing that summarizes a vast literature into a single—albeit simplified—conceptual model.

Although the theories in Table 2 of chapter three are based in different disciplines, the phenomena under study are much the same. The theorists are all interested in identifying the distinct ways in which people think, and how they claim to know what they know. For sake of brevity, I call this overarching concept a person's *thinking/knowing style*. According to the literature review, the thinking/knowing style *thesis* is characterized by the use of formal operations, problem solving, linear thinking, absolutism, dualism, and objectivism. The thinking/knowing style *antithesis* is just the opposite of the thesis; it is marked by problem finding, relativism, multiplicity, and subjectivism. The thinking/knowing style *synthesis* finds balance between the thesis and antithesis, and can be described as dialectical, holistic, constructivist, and evaluativist in nature. I find that Kramer's (1983, 1989) terminology best fits these descriptors. Therefore, the thesis of the dialectical model of knowing is *absolutist thinking*, the antithesis is *relativistic thinking*, and the synthesis is *dialectical thinking*. This leaves one more thinking/knowing style to describe and name—the *diathesis*. To determine what qualifies as the thinking/knowing style diathesis for this dialectical model of knowing, I need to define the dimensions of the circumplex model based on the styles I have already described.

First, I must contrast the thesis and antithesis to identify the two major points of divergence between their thinking/knowing styles. Kuhn and Weinstock (2002) define the essence of the absolutist (i.e., absolutist thinking in my model) as viewing reality as directly knowable and critical thinking as a means for determining the truth or falsehood of claims. In contrast, they describe the multiplist (i.e., relativistic thinking in my model) as perceiving reality as *not* directly knowable and critical thinking as irrelevant since all opinions are subjective and,

therefore, equally right. I can expound on Kuhn and Weinstock's observations to define the two dimensions of my dialectical circumplex model. The thesis (absolutist thinking) and the antithesis (relativistic thinking) differ along two dimensions. Absolutist thinkers see reality as directly knowable and, therefore, knowledge as certain. Relativistic thinkers, on the other hand, view reality as not directly knowable and, consequently, see knowledge as uncertain. For this reason, I name this dimension *certainty of knowledge*. Another point of contention between these thinking/knowing styles is their *state of criticality*. Absolutist thinkers strive to gain knowledge by critically evaluating objective claims while relativistic thinkers abstain from judging or evaluating arguments, which they see as purely subjective.

Next, I must define the poles of the two dimensions in my circumplex model. The poles for the state of criticality dimension I label *critical* and *uncritical* and the poles of the certainty of knowledge dimension I label *certain* and *uncertain*. With the dialectical circumplex model thus defined, I can place the thinking/knowing styles in their appropriate quadrants. The thinking/knowing style thesis (i.e., absolutist thinking) appears in the top-left quadrant defined as critical and certain. The thinking/knowing style antithesis (i.e., relativistic thinking) appears in the bottom-right quadrant defined as uncritical and uncertain. Logically, I can surmise that the thinking/knowing style synthesis (i.e., dialectical thinking) either combines the critical and uncertain concepts or the uncritical and certain concepts to integrate the thesis and antithesis conceptions. Kuhn and Weinstock (2002) state that the evaluator (i.e., dialectical thinking in my model) values critical thinking as a means of promoting sound assertions and enhanced understanding and perceives reality as not directly knowable. From this characterization, I conclude that the synthesis occupies the top-right quadrant defined as critical and uncertain. This

means the bottom-left quadrant is defined as uncritical and certain and represents the thinking/knowing style diathesis.

The summary of theories of intellectual and epistemological development in Table 2 does not immediately offer a diathesis, but a closer look at Kuhn and Weinstock's (2002) model might. They describe a level of epistemological understanding called the realist that I believe corresponds to a thinking/knowing style that is uncritical but certain. Realists believe a single reality exists independent of themselves and that knowledge comes from an external source and is certain. If knowledge is handed down from authority figures and there is only one, objective reality, then there is no need for critical thinking and knowledge once obtained is certain and unwavering. This *realist thinking* aligns with the thinking/knowing style diathesis of my dialectical model of knowing and is labeled in the model accordingly (see Figure 9).

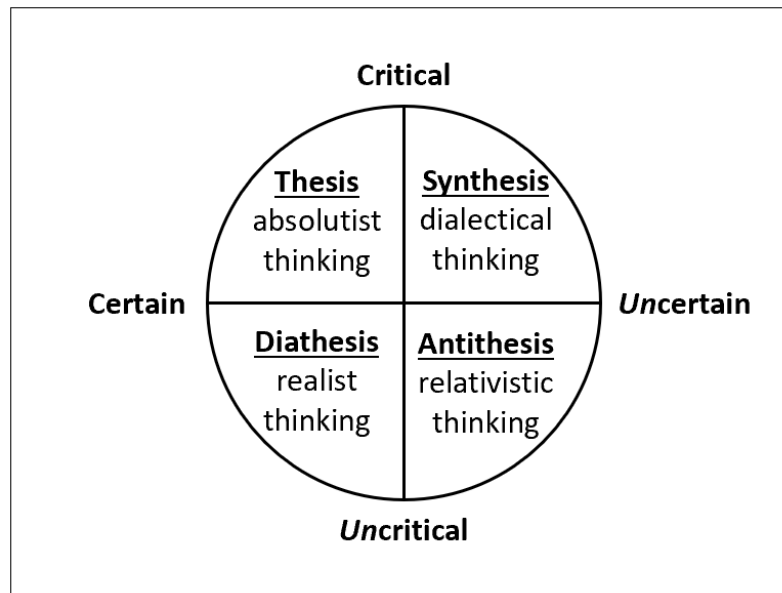


Figure 9. A dialectical model of knowing. The thinking/knowing styles are defined along two dimensions such that the thesis "absolutist thinking" is defined as certain and critical, the antithesis "relativistic thinking" is defined as uncritical and uncertain, the synthesis "dialectical thinking" is defined as critical and uncertain, and the diathesis "realist thinking" is defined as uncritical and certain.

Summary and Discussion

Kramer's (1983, 1989) theory of postformal intellectual development and Kuhn and Weinstock's (2002) theory of epistemological understanding certainly inform this dialectical model of knowing. Nonetheless, my model improves upon previous theories in a few significant ways. First, according to most of the theories reviewed in chapter two, the stages or levels are part of a developmental progression toward a more mature intellectual or epistemological understanding. The dialectical model of knowing I present here accepts the notion of thinking/knowing as a process. However, it does not assume a linear path of development. Rather, this model of epistemology conceives of the thinking/knowing styles as alternative perspectives on knowledge and ways of knowing in a greater dialectical system. An individual or society may alternate between or exhibit a combination of thinking/knowing styles in different contexts. Secondly, my dialectical model of knowing, unlike previous theoretical models, recognizes the dialectical relationships between the different thinking/knowing styles. It identifies the points of contention and agreement between all four thinking/knowing styles. Third, my dialectical model of knowing is not only a theory of epistemology; it establishes a method for applying the dialectical circumplex model to phenomena. In the next chapter, I will explore the implications of this model's applicability to the field of education by answering the question, "How does the dialectical circumplex model translate into a dialectical method for learning?"

Chapter 5: Conclusion

With this concluding chapter of my dissertation, I aim to outline the findings of the literature review, summarize my proposed theory of dialectic, discuss its implications for practice, and recommend directions for future research. I begin by anticipating and refuting potential critiques of this theory of dialectic and, in so doing, provide a brief summary of each previous chapter of this dissertation. Next, I describe a dialectical method for learning as a means of demonstrating a practical application of the dialectical circumplex model. Specifically, I illustrate how varying perspectives on diversity and culture can be taught following the dialectical method for learning. Lastly, I identify a few worthwhile research questions that may test the theory of dialectic presented in this dissertation.

Refutation of Anticipated Arguments

In this section of the final chapter, I refute three anticipated critiques of my theory of dialectic by referencing material presented earlier in this dissertation. The first possible argument against my theory of dialectic is that the concept of dialectic itself is archaic and obsolete. In truth, the concept of dialectic can be traced back to ancient thought as I demonstrate in chapter two. The 6th century B.C.E. text called *Tao Te Ching* (the *Book of Changes*), presumably written by the Chinese philosopher Laozi, is the first-known account of the dialectical perspective. According to Taoism, the interaction and interdependence of opposite elements create an ever-changing, complex, but harmonious world. Ancient Greek philosopher Heraclitus (fl. c. 500 B.C.E.) suggests that all things are in a state of continual flux—a notion echoed in the Buddhist *Mahavagga* and the Hinduist *Vedas* and *Upanisads*. The dialectical tradition of suspending judgment and taking the middle way is present in both the writings of Greek philosopher Pyrrho of Elis (c. 360-c. 270 B.C.E.) and Buddhist philosopher Nāgārjuna (c. 150-c. 250).

The actual term “dialectic” originates with Greek philosopher Plato (427-347 B.C.E.) who wrote dialogues featuring his famous teacher Socrates (469-399 B.C.E.). These dialogues introduce a new conception of dialectic as a method of question-and-answer argumentation. For Socrates the dialectical method exposes ignorance, but for Plato dialectic—as an iterative process of reasoning—can reveal truth. Plato’s student Aristotle (384-322 B.C.E.) disagrees with this assessment, however, viewing dialectic as nothing more than intellectual gymnastics. Aristotle’s formal logic displaces dialectic as a form of reasoning through the Middle Ages. The term is resurrected by German philosopher Kant (1724-1804) and his transcendental dialectic inspires German idealists Fichte (1762-1814) and Hegel (1770-1831) to develop the three-stage dialectical movement from thesis to antithesis to synthesis. Even the more recent depictions of this dialectical format by Marx (1818-1883) and Tillich (1886-1965) one could understandably dismiss as dated.

Yet, just because something is old does not necessarily mean it is obsolete. I demonstrate this fact in chapter three. While chapter two traces the path of dialectic from ancient to modern philosophy, chapter three considers the contemporary uses of dialectic in psychology and education. Cognitive and development psychologists recommend a stage of intellectual development beyond Piaget’s formal operations. Inspired by Hegel, Riegel (1973) coins the term dialectical thinking to describe his postformal stage of intellectual development. Basseches (1984), too, views dialectical thinking as a hallmark of mature adult cognition and even develops and empirically tests a dialectical schemata framework. Social and cultural psychologists like Peng and Nisbett (1999) and Li (2018) contrast naïve dialecticism or dialectical thinking, which they associate with East Asians, with linear thinking, which they associate with Westerners.

The concept of dialectic appears in the educational literature as well. Hofer (2002) describes the development of personal epistemology as a (dialectical) movement from an objective, dualist view to a subjective, relativistic perspective to a balanced, contextualist understanding of knowledge. In the last 20 or so years, several educational philosophers and practitioners have highlighted the dialectics embedded in the processes of teaching and learning. Some even contemplate how educational environments and classroom activities can facilitate dialectical reasoning in students. These more current examples of dialectic in psychology and education negate the claim that dialectic is a completely outmoded concept.

A second related critique is that the concept of dialectic is esoteric and unlikely to be of value to anyone outside of a small number of academics. It is this perception that I set out to challenge with my dissertation. The various conceptions of dialectic I cover in chapters two and three are distilled into a single, unifying theory of dialectic, which I explain in chapter four. I began by describing the ontological and epistemological components of the dialectical perspective. A dialectical ontology assumes that the world is constituted by myriad pairs of opposing but complementary forces whose interaction results in the phenomena known as dialectics. A dialectical epistemology views knowledge as a tentative product born of an iterative, constructive, and continual process in which the knower takes a critical and holistic approach to understanding the world. Thus, dialectical thinking involves identifying complementary opposites, considering how their dynamic relationship creates an emergent, complex system, and utilizing this knowledge to critically reason about and holistically evaluate the world. Next, I reinterpret Hegel's two-concept dialectical format in tetradic form. This thesis-antithesis-synthesis-dialectic format inspires my dialectical circumplex model, which depicts dialectic with a two-dimensional conceptual model. Lastly, I demonstrate how this dialectical

circumplex model can be used to make sense of numerous seemingly disparate theories within a field of study. The dialectical model of knowing accomplishes this end by identifying a thesis (absolutist thinking), antithesis (relativistic thinking), synthesis (dialectical thinking), and diathesis (realist thinking) among the many theories of intellectual and epistemological development. This application of the dialectical circumplex model suggests that the concept of dialectic may be of value to anyone who is looking to better understand a complex phenomenon in their world, not just scholars of philosophy.

The third anticipated argument against my theory of dialectic is that the dialectical circumplex model is reductionistic and, therefore, a poor representation of reality. Linde (2003) levies this criticism against the use of two-dimensional models in social science, calling the model a simplification and an illusion—a ‘*trompe l’oeil*.’ Since variables in the social sciences do not exist at the interval scale level as they do in the natural sciences, Linde argues that social constructs can never be truly dimensional nor can their assumed opposites constitute genuine diametrical opposites. Nevertheless, the following quote from Linde (2003) suggests that even though two-dimensional models are imperfect metaphors for reality, they may yet serve a purpose.

A model can never be a one-to-one scale map of reality. Models are constructions in which the constructor decides what aspects of reality to highlight....The question is not how true a model is but how suitable it is to illustrate an aspect of reality or how effective it is to stimulate reflection on reality, knowing that models always simplify and distort a ‘true’ image of reality. (p. 44)

This idea is reminiscent of the oft-quoted maxim that “all models are wrong, but some are useful” (Box, 1976). The dialectical circumplex model may not be an exact representation of

reality, but it does provide a useful framework for thinking dialectically and holistically about social phenomena. Until properly tested, the dialectical circumplex model should not be ruled out as thoroughly without intellectual or educational value.

Implications for Practice and Research

This dissertation has both practice and research implications. I developed a new theory of dialectic to make the concept more accessible to a wider audience, but also to increase its applicability. Specifically, I hope to promote the use of the dialectical circumplex model by educators and academics to facilitate dialectical thinking in the classroom and in scholarly research. The dialectical circumplex model is a visual representation of the dialectical relationships that exists between interrelated concepts. Therefore, the application of the dialectical circumplex model to a topic of interest necessarily compels one to think dialectically about the phenomenon under study. In the next section, I outline the procedure for mapping a phenomenon onto the dialectical circumplex model with a dialectical method for learning. I argue this procedure is of value to educators, students, and researchers alike.

Dialectical method for learning. To demonstrate how the dialectical circumplex model can be implemented to facilitate dialectical thinking about an area of study, I designed a *dialectical method for learning*. The end product of this dialectical method for learning is a dialectical circumplex model tailored to a selected topic. This model can serve as a pedagogical tool in the classroom, a conceptual framework for future research, or a reference guide on a certain topic. The validity of the model created using the dialectical method for learning, however, cannot be guaranteed. Instead, it is dependent on the users ability to synthesize the available literature, employ sound logic, and corroborate their thinking. For this reason, I

strongly encourage collaboration during the development and validation of any dialectical circumplex model.

In constructing a dialectical circumplex model, the students, scholars, educators, or researchers (hereinafter referred to as “learners”) can build a more holistic picture of the phenomenon under study, clarify related terms, and gain insights into the dialectical relationships at play. Therefore, it is the *process* not the product of the dialectical method for learning that holds the true value for learners. The following method represents just one way someone could apply the principles of the dialectical circumplex model to practice. There are different entry points possible for the procedure I outline below. The learner may also find the need to adjust the order of steps depending on the topic chosen, literature available, or outcome desired. In other words, I intend educators and learners to use this dialectical method for learning as a template that they can customize as needed. (In Appendix A of this dissertation, I describe these steps in more detail.)

The first step of my proposed dialectical method for learning is to select a topic of interest that involves a complex phenomenon of which there are divergent theories, philosophies, or perspectives. Existing and substantial literature on the topic is also an important prerequisite as the learner will need to continually use this base to construct and validate their thinking about the topic. Next, the learners using this method should ask a sufficiently broad question related to the chosen topic to guide their learning. Perhaps the most important step of this dialectical method for learning is for the learners to familiarize themselves with the relevant literature. They should try to organize their thinking by identifying a few major themes, theories, or perspectives in the literature. This may manifest as a thought map, web, table, or literature review.

From here, the learners must seek to establish a thesis and antithesis among the various viewpoints about the topic. This step is pivotal, so be sure that the thesis and antithesis represent two major ideas or theories that are diametrically opposed in the literature or in the real world. Now, learners must decide along which two dimensions the thesis and antithesis oppose each other. Each pole of each dimension must correspond with either the thesis or the antithesis, so that the thesis and antithesis are defined by two sets of opposing poles. The literature should corroborate these pole designations as well as the definitions of the thesis and antithesis developed from them. Please note that the dimensions and poles dictate the rest of the dialectical circumplex model so, if not selected carefully and logically, the whole model could be invalid or unworkable. It is recommended that learners discuss their decision-making with colleagues to verify their thinking along the way.

Now that the learners have determined the two dimensions and four poles of the dialectical circumplex model, they can decide whether the synthesis occupies the upper-right quadrant or the lower-left quadrant of their model. In other words, which set of poles aligns with the synthesis and which set aligns with the diathesis? The synthesis should be a positive compromise or reconciliation between the thesis and antithesis while the diathesis should combine the thesis and antithesis in an unfavorable or detrimental way. Unlike with the thesis and antithesis, the synthesis and/or the diathesis may not be appear as well-established theories in the literature. Nonetheless, the synthesis and diathesis should still represent an idea or perspective related to the phenomenon under study and their respective definitions should reflect their corresponding pole designations. If either the definition of the synthesis or diathesis generated by the model seems illogical or contrary to the literature, then the learners may need to

return to an earlier step in the dialectical method for learning to reassess the thesis, antithesis, dimensions, and/or poles of the model.

At this point in the method, the learners have constructed a complete dialectical circumplex model. The next step is to reflect on the model's accuracy and/or usefulness for answering their original question. Are the thesis, antithesis, synthesis, and diathesis all ideas, theories, or viewpoints related to the topic? Do their positions within the dialectical circumplex model make sense? In other words, consider whether diagonal quadrants are true opposites and adjacent quadrants are similar to each other. Do the poles and their dimensions accurately describe the similarities and differences among the various ideas, theories, or viewpoints displayed in the model? Ideally, learners should review and discuss these questions thoughtfully with fellow learners, educators, or scholars within the field and make any modifications they deem necessary. This is an iterative process that may take multiple pass throughs to arrive at a valid, logically-sound model. The final step of this dialectical method for learning is to consider follow-up questions, practical uses, and future directions based on the newly-developed dialectical circumplex model.

An example topic that would be appropriate to explore using this dialectical method for learning is diversity ideologies. *Diversity ideologies* are people's beliefs and practices about diversity and, more specifically, their theories about how to improve relations and achieve equality among groups (Rattan & Ambady, 2013; Rosenthal & Levy, 2010). The challenge of negotiating social and cultural differences grows in importance as the United States becomes increasingly racially and ethnically diverse (Frey, 2015). To address these complex diversity issues, Rattan and Ambady (2013) and Plaut (2010) call for a deeper examination of diversity ideologies. Since the function of the dialectical circumplex model is to achieve a richer, more

complete understanding of complex phenomena through dialectical thinking, the topic of diversity ideologies is an excellent candidate for a dialectical method for learning. Appendix B of this dissertation follows the dialectical method for learning presented in Appendix A to create a dialectical circumplex model of diversity ideologies. I do not claim that this model of diversity ideologies is a perfect reflection of reality nor are these the only diversity perspectives that exist. I would, however, assert that all other diversity ideologies—when defined by the dimensions of identity and culture—are contained within the dialectical system as some combination of two or more of these four types. This dialectical circumplex model represents one conceptualization (supported by literature) of four primary or “pure-type” diversity ideologies.

Similarly, I do not allege that mine is the only dialectical method for learning. This method represents one way to practice thinking dialectically about the world. A dialectical method for learning like this one simply acts as a guide for leading discussions about complex social phenomena. Educators can use a dialectical method for learning to prepare lesson plans, seminars, or workshops on an otherwise perplexing or overwhelming subject matter. By preparing a dialectical circumplex model on a particular topic ahead of time, educators can more clearly communicate the similarities and differences among various theories or ideas to their students. They can even structure their courses around the model. Perhaps they can design units that cover each of the four quadrants and present the final culminating dialectical circumplex model at the end.

Once students become familiar with dialectical circumplex models, teachers can lead classroom discussions in which students identify dialectical relationships related to their course material. For instance, at the end of a unit on government, a teacher can challenge the class to demonstrate what they have learned by working as a class to develop a dialectical circumplex

model of political parties. Such a dialectical circumplex model might have a fiscal dimension and a social dimension both with progressive and conservative poles. Alternatively, educators can design a group activity or partner assignment using a dialectical method for learning. For example, students can follow the dialectical method for learning on a topic of their choosing as a final project or variation on a literature review. Along the way, students can get suggestions from the teacher and their peers. At the end, students can present their dialectical circumplex models to the class to spur discussion and receive feedback on their conceptualizations.

In addition to its utility as an educational and pedagogical tool, the dialectical circumplex model can serve as the underlying conceptual framework for research. The last step in the dialectical method for learning (see Appendix A) is to ask follow-up questions about the topic and/or consider future directions based on findings from the dialectical circumplex model. In Appendix B, the dialectical circumplex model of diversity ideologies inspires the question, “How well do these four types of diversity ideologies represent the ways people actually think about diversity?” A researcher could conduct a study to address this question and use the dialectical circumplex model as a theoretical basis for the study’s design. Appendix C serves as an illustration of a questionnaire that might be used in such a study.

The dialectical circumplex model of diversity ideologies developed in Appendix B inspired me to create a sample survey to assess respondents’ diversity ideologies. The structure of the survey reflects the two dimensions of the dialectical circumplex model of diversity ideologies—namely, identity and culture. Question 1 and Question 3 of the survey (see Appendix C) ask the respondent about the best way to understand a person’s identity and the thing to remember about culture, respectively. The survey also incorporates the diversity ideology definitions constructed during the dialectical method for learning (see Appendix B).

Depending on the respondent's answer to the question about the identity dimension of diversity, they receive either Question 2.A or 2.B. Since ethnocentrism and multiculturalism both consider group membership a significant determinant of identity, Question 2.A deciphers between the two ideologies by asking why learning about a person's cultural group is helpful. Likewise, Question 2.B distinguishes between a colorblind and intercultural view of identity by asking why learning about a person's individual characteristics is important. Following the question about the cultural dimension of diversity, the respondent either receives Question 4.A or 4.B. Question 4.A deciphers between a colorblind or ethnocentric view of culture as universal while Question 4.B distinguishes between an intercultural or multicultural view of culture as particular. Question 5 allows respondents to give feedback regarding the accuracy of a summary statement of their diversity perspective generated from their responses. The summary statement categorizes respondent's answers as one of the four main types of diversity ideologies (i.e., colorblindness, multiculturalism, interculturalism, or ethnocentrism) or as a combination of two or more (see Appendix C for summary statements). Questions 6 and 7 offer respondents the opportunity to define identity and culture in their own words. These act as a check on the validity of the previous survey questions. Questions 8 and 9 represent open-ended versions of the demographic questions typically included in a survey of this type. This survey provides just one example of how someone could employ the dialectical circumplex model as a conceptual framework for their research.

Recommendations for future research. With this dissertation, I explored the potential merits of the Hegelian dialectical method as reinterpreted by Wheat. Despite scholars' general dismissal of thesis-antithesis-synthesis dialectics as archaic nonsense, the concept of dialectic lives on. It emerges as dialectical thinking in psychology, as dialectical relationships in

education, and, more broadly, as two-dimensional models across the social sciences. I attempted to unify these various interpretations of dialectic with my new theory of dialectic: the dialectical circumplex model. More importantly, I endeavored to make dialectic accessible to a wider audience and increase its practicability for educators, students, and academics by creating a dialectical method for learning.

The best way to evaluate my success at or failure in achieving these ends is to follow up this theoretical dissertation with research that tests its validity as well as its educational effectiveness. First, I must ask whether my definition of dialectic truly does reflect and unite previous and current conceptions of dialectic. If so, is the dialectical circumplex model a valid depiction of dialectic? Does it aid in the comprehension of this multifaceted and expansive concept? Second, does the dialectical method for learning actually stimulate dialectical thinking? Regarding its pedagogical use, is it most effective as an individual or group assignment or as a classroom activity? Of course, these questions presuppose that dialectical thinking is a desirable mode of thought to begin with. Researchers should continue to hone an operational definition and examine the benefits and potential drawbacks of dialectical thinking. Since current research mostly examines cross-cultural differences in dialectical thinking (see Spencer-Rodgers & Peng, 2018), the impact of dialectical thinking in educational environments is sorely needed. In this dissertation, I applied the dialectical circumplex model to epistemological beliefs and diversity ideologies, but how well do my conceptions of their dialectical relationships approximate reality? Is the dialectical circumplex model applicable to other phenomena? If so, are there additional parameters that determine their suitability for dialectical inquiry? What are the limits to its utility?

In summary, future research should consider the value of dialectical tools of inquiry, such as the dialectical circumplex model and dialectical method for learning, for gaining a deeper understanding of our world. I would not go so far as to proclaim dialectical thinking the third Enlightenment as Wilson (2017) did with his proposed synthesis of science and the humanities. I do, however, believe that the true intellectual and educational potential of dialectic lies dormant awaiting discovery (at least for Westerners of the 21st century). When I reflect on the great civilizations and thinkers who invented dialectic, I cannot help but wonder what untold wisdom the dialectical approach has left to impart on those who are daring enough to use it.

References

- Aristotle (1930). On generation and corruption (H. H. Joachim, Trans.). In W. Ross (Ed.), *The works of Aristotle* (Vol. 2). Oxford, UK: Oxford University Press.
- Arlin, P. K. (1975). Cognitive development in adulthood: A fifth stage? *Development Psychology, 11*(5), 602-606. doi:10.1037/0012-1649.11.5.602
- Au, W. (2007). Epistemology of the oppressed: The dialectics of Paulo Freire's theory of knowledge. *Journal for Critical Policy Studies, 5*(2), 175-196.
- Basseches, M. (1980). Dialectical schemata: A framework for the empirical study of the development of dialectical thinking. *Human Development, 23*(6), 400-421.
doi:10.1159/000272600
- Basseches, M. (1984). *Dialectical thinking and adult development*. Norwood, NJ: Ablex Publishing Co.
- Basseches, M. (2005). The development of dialectical thinking as an approach to integration. *Integral Review, 1*, 47-63.
- Baxter Magolda, M. B. (1992). *Knowing and reasoning in college: Gender-related patterns in students' intellectual development*. San Francisco, CA: Jossey-Bass.
- Beiser, F. C. (2008). Introduction: The puzzling Hegel renaissance. In F. C. Beiser (Ed.), *The Cambridge companion to Hegel and nineteenth-century philosophy* (pp. 1-14). New York, NY: Cambridge University Press.
- Belenky, M., Clinchy, B., Goldberger, N. R., & Tarule, J. (1986). *Women's ways of knowing: The development of self, mind, and voice*. New York, NY: Basic books.
- Bernardo, A. B., Salanga, M. G., Tjipto, S., Hutapea, B., Yeung, S. S., & Khan, A. (2016). Contrasting lay theories of polyculturalism and multiculturalism: Associations with

- essentialist beliefs of race in six Asian cultural groups. *Cross-Cultural Research*, 50(3), 231-250. doi:10.1177/1069397116641895
- Bizumic, B., & Duckitt, J. (2012). What is and is not ethnocentrism?: A conceptual analysis and political implications. *Political Psychology*, 33(6), 887-909. doi:10.1111/j.1467-9221.2012.00907.x
- Bober, M. M. (1950). *Karl Marx's interpretation of history* (2nd ed., rev). Cambridge, MA: Harvard University Press.
- Bouchard, G. (2015). *Interculturalism: A view from Quebec*. (H. Scott, Trans.). Toronto, ON: University of Toronto Press. (Original work published 2012)
- Box, G. E. P. (1976). Science and statistics. *Journal of the American Statistical Association*, 71(356), 791-799.
- Brislin, R. (1993). *Understanding culture's influence on behavior*. Fort Worth, TX: Harcourt Brace College.
- Bruner, J. S. (1959). Inhelder and Piaget's *The Growth of Logical Thinking*: I. A psychologist's viewpoint. *British Journal of Psychology*, 50, 363-370. doi:10.1111/j.2044-8295.1959.tb00716.x
- Butler, C. (2012). *The dialectical method: A treatise Hegel never wrote*. Amherst, NY: Humanity Books.
- Cantle, T. (2012). *Interculturalism: A new era of cohesion and diversity*. New York, NY: Palgrave MacMillan.
- Cornwell, G. H., & Stoddard, E. W. (1994). Things fall together: A critique of multicultural curricular reform. *Liberal Education*, 80(4), 40-51.

- Correll, J., Park, B., & Smith, A. (2008). Colorblind and multicultural prejudice reduction strategies in high-conflict situations. *Group Processes and Intergroup Relations*, 11, 471-491.
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241-1299.
- Crites, S. (1998). *Dialectic and gospel in the development of Hegel's thinking*. University Park, PA: Pennsylvania State Press.
- Dewey, J. (1911). Dialectic. In P. Monroe (Ed.), *The cyclopedia of education* (Vol. 2, pp. 321-322). New York, NY: Macmillan.
- Dorion, L. A. (2012). Aristotle's definition of elenchus in the light of Plato's *Sophist*. In J. Fink (Ed.), *The development of dialectic from Plato to Aristotle* (pp. 251-269). New York, NY: Cambridge University Press.
- Elbow, P. (1986). *Embracing contraries exploration in learning and teaching*. New York, NY: Oxford University Press.
- Eysenck, H. J. (1969). Historical development of human typology. In H. Eysenck & S. Eysenck (Eds.), *Personality structure and measurement* (pp. 11-18). London, UK: Routledge & Kegan Paul.
- Fink, J. L. (2012). Introduction. In J. Fink (Ed.), *The development of dialectic from Plato to Aristotle* (pp. 1-23). New York, NY: Cambridge University Press.
- Fox, M. A. (2005). *The accessible Hegel*. Amherst, NY: Prometheus Books.
- Frey, W. H. (2015). *Diversity explosion: How new racial demographics are remaking America*. Washington, DC: Brookings Institution Press.

- Gadotti, M. (1996). *Pedagogy of praxis: A dialectical philosophy of education* (J. Milton, Trans.). Albany, NY: State University of New York Press.
- George, F. E. (1973). Dewey and dialectic. In R. Whitemore (Ed.), *Dewey and his influence: Essays in honor of George Estes Barton* (pp. 22-37). Dordrecht, Netherlands: Springer.
- Gottlieb, A. (2016). *The dream of enlightenment: The rise of modern philosophy*. New York, NY: Liveright Publishing.
- Grigas, L. C. (1993). *Medicine wheels: Tools of adaptation in Aboriginal and non-Aboriginal society* (Master's thesis). Available from Library and Archives Canada. (AMICUS No. 15854156)
- Grossmann, I. (2018). Dialecticism across the lifespan: Toward a deeper understanding of the ontogenetic and cultural factors influencing dialectical thinking and emotional experience. In J. Spencer-Rodgers & K. Peng (Eds.), *The psychological and cultural foundations of east Asian cognition: Contraction, change, and holism* (pp. 135-180). New York, NY: Oxford University Press.
- Gündemir, S., Homan, A. C., Usova, A., and Galinsky, A. D. (2017). Multicultural meritocracy: The synergistic benefits of valuing diversity and merit. *Journal of Experimental Social Psychology, 73*, 34-41.
- Hanhijarvi, T. J. (2015). *Dialectical thinking: Zeno, Socrates, Kant and Marx*. New York, NY: Algora Publishing.
- Hegel, G. W. (1977). *The phenomenology of spirit*. (A. V. Miller, Trans.). Oxford, UK: Clarendon. (Original work published 1807)
- Hofer, B. K. (2002). Personal epistemology as a psychological and educational construct: An introduction. In B. Hofer & P. Pintrich (Eds.), *Personal epistemology: The psychology of*

- beliefs about knowledge and knowing* (pp. 3-14). Mahwah, NJ: Lawrence Erlbaum Associates.
- Hofer, B. K., & Pintrich, P. R. (1997). The development of epistemological theories: Beliefs about knowledge and knowing and their relation to learning. *Review of Educational Research, 67*(1), 88-140. doi:10.2307/1170620
- Hofer, B. K., & Pintrich, P. R. (Eds.) (2002). *Personal epistemology: The psychology of beliefs about knowledge and knowing*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Englewood Cliffs, NJ: Prentice-Hall.
- Holoien, D. S., & Shelton, J. (2012). You deplete me: The cognitive costs of colorblindness on ethnic minorities. *Journal of Experimental Social Psychology, 48*, 562-565.
- Kahn, C. H. (2012). The philosophical importance of the dialogue form for Plato. In J. Fink (Ed.), *The development of dialectic from Plato to Aristotle* (pp. 158-173). New York, NY: Cambridge University Press.
- Kallio, E. (2011). Integrative thinking is the key: An evaluation of current research into the development of adult thinking. *Theory & Psychology, 21*(6), 785-801. doi:10.1177/0959354310388344
- Kelley, R. D. (1999). People in me: "So, what are you?" *Colorlines, 1*(3), 5.
- King, M. L., Jr. (1963). *I have a dream*. [PDF document]. Retrieved from <https://www.archives.gov/files/press/exhibits/dream-speech.pdf>
- King, P. M., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco, CA: Jossey-Bass.

- Kramer, D. A. (1983). Post-formal operations? A need for further conceptualization. *Human Development, 26*(2), 91-105. doi:10.1159/000272873
- Kramer, D. A. (1989). Development of an awareness of contradiction across the life span and the question of postformal operations. In M. Commons, J. Sinnott, F. Richards, & C. Armon (Eds.), *Adult development, Vol. 1: Comparisons and applications of developmental models* (pp. 133-159). Westport, CT: Praeger Publishers.
- Kuhn, D., & Udell, W. (2001). The path to wisdom. *Educational Psychologist, 36*(4), 261-264. doi:10.1207/s15326985ep3604_6
- Kuhn, D., & Weinstock, M. (2002). What is epistemological thinking and why does it matter? In B. Hofer & P. Pintrich (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (pp. 121-144). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kullmann, W. (2012). Aristotle's gradual turn from dialectic. In J. Fink (Ed.), *The development of dialectic from Plato to Aristotle* (pp. 296-315). New York, NY: Cambridge University Press.
- Kuzminski, A. (2008). *Pyrrhonism: How the ancient Greeks reinvented Buddhism*. Lanham, MD: Lexington Books.
- Labouvie-Vief, G. (1980). Beyond formal operations: Uses and limits of pure logic in life-span development. *Human Development, 23*(3), 141-161. doi:10.1159/000272546
- Li, P. P. (2018). The epistemology of yin-yang balancing as the root of Chinese cultural traditions: The indigenous features and geocentric implications. In J. Spencer-Rodgers & K. Peng (Eds.), *The psychological and cultural foundations of east Asian cognition: Contraction, change, and holism* (pp. 35-79). New York, NY: Oxford University Press.

- Linde, G. (2003). The use of two-dimensional models in social science: An autocratical review. *European Journal of Teacher Education*, 26(1), 37-45. doi:10.1080/0261976032000065625
- Lloyd, G. E. R. (1964). The hot and the cold, the dry and the wet in Greek philosophy. *The Journal of Hellenic Studies*, 84, 92-106. doi:10.2307/627697
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.
- McEvelley, T. (2002). *The shape of ancient thought: Comparative studies in Greek and Indian philosophies*. New York, NY: Allworth Press.
- Meer, N., & Modood, T. (2012). How does interculturalism contrast with multiculturalism? *Journal of Intercultural Studies*, 33(2), 175-196. doi:10.1080/07256868.2011.618266
- Moghaddam, F. M. (2012). The omnicultural imperative. *Culture & Psychology*, 18(3), 304-330. doi:10.1177/1354067X12446230
- Moore, M. E. M. (1998). *Teaching from the heart: Theology and educational method*. Harrisburg, PA: Trinity Press International.
- Morris, M. W., Chiu, C. Y., & Liu, Z. (2015). Polycultural psychology. *Annual Review of Psychology*, 66, 631-659. doi:10.1146/annurev-psych-010814-015001
- Mueller, G. E. (1958). The Hegel legend of "thesis-antithesis-synthesis." *Journal of the History of Ideas*, 19(3), 411-414.
- Nelson, J. L., Carlson, K., & Palonsky, S. B. (1993). *Critical issues in education: A dialectic approach* (2nd ed.). New York, NY: McGraw Hill.
- Nelson, J. L., Palonsky, S. B., & McCarthy, M. R. (2013). *Critical issues in education: Dialogues and dialectics* (8th ed.). Long Grove, IL: Waveland Press.

- Newman, W. M. (1973). *American pluralism: A study of minority groups and social theory*. New York, NY: Harper & Row.
- Nicholls, A. G. (1928). What is diathesis? *Canadian Medical Association Journal*, 18(5), 585-586.
- O'Keefe, T. M. (1981). Paul Tillich's Marxism. *Social Research*, 48(3), 472-499.
- Paletz, S. B., Bogue, K., Miron-Spektor, E., & Spencer-Rodgers, J. (2018). Dialectical thinking and creativity from many perspectives: Contradiction and tension. In J. Spencer-Rodgers & K. Peng (Eds.), *The psychological and cultural foundations of east Asian cognition: Contradiction, change, and holism* (pp. 267-308). New York, NY: Oxford University Press.
- Palmer, P. J. (1998). *The courage to teach: Exploring the inner landscape of a teacher's life*. San Francisco, CA: Jossey-Bass.
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, 54(9), 741-754. doi:10.1037/0003-066x.54.9.741
- Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years: A scheme*. New York, NY: Holt, Rinehart and Winston.
- Piaget, J. (1952). *The origins of intelligence in children* (M. Cook, Trans.). New York, NY: Norton. doi:10.1037/11494-000
- Pieterse, J. N. (1996). Globalisation and culture: Three paradigms. *Economic and Political Weekly*, 31(23), 1389-1393.
- Pieterse, J. N. (2001). Hybridity, so what?: The anti-hybridity backlash and the riddles of recognition. *Theory, Culture & Society*, 18(2-3), 219-245.

- Pinkard, T. P. (2008). Hegel: A life. In F. C. Beiser (Ed.), *The Cambridge companion to Hegel and nineteenth-century philosophy* (pp. 15-14). New York, NY: Cambridge University Press.
- Pintrich, P. R. (2002). Future challenges and directions for theory and research on personal epistemology. In B. Hofer & P. Pintrich (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (pp. 389-414). Mahwah, NJ: Lawrence Erlbaum Associates.
- Plaut, V. C. (2010). Diversity science: Why and how difference makes a difference. *Psychological Inquiry*, 21(2), 77-99. doi:10.1080/10478401003676501
- Prashad, V. (2001). *Everybody was kung ku fighting: Afro-Asian connections and the myth of cultural purity*. Boston, MA: Beacon Press.
- Prashad, V. (2003). Bruce Lee and the anti-imperialism of kung fu: A polycultural adventure. *Positions: Asia Critique*, 11(1), 51-90. Durham, NC: Duke University Press. doi:10.1215/10679847-11-1-51
- Rattan, A., & Ambady, N. (2013). Diversity ideologies and intergroup relations: An examination of colorblindness and multiculturalism. *European Journal of Social Psychology*, 43(1), 12-21. doi:10.1002/ejsp.1892
- Richeson, J. A., & Nussbaum, R. J. (2004). The impact of multiculturalism versus colorblindness on racial bias. *Journal of Experimental Social Psychology*, 40, 417-423.
- Riegel, K. F. (1973). Dialectic operations: The final period of cognitive development. *Educational Testing Service*, 1, i-38. doi:10.1002/j.2333-8504.1973.tb00199.x
- Roback, A. A. (1931). *The psychology of character: With a survey of temperament*. London, UK: Kegan Paul.

- Roberts, V. W. (1973). *Hegelian dialectic in the light of its antecedents in Plato, Aristotle, Kant, and Fichte* (Doctoral dissertation). Retrieved from ProQuest Dissertations Publishing. (UMI No. 7402758)
- Rosenthal, L., & Levy, S. R. (2010). The colorblind, multicultural, and polycultural ideological approaches to improving intergroup attitudes and relations. *Social Issues and Policy Review*, 4(1), 215-246. doi:10.1111/j.1751-2409.2010.01022.x
- Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, 39(6), 1161-1178. doi:10.1037/h0077714
- Schlosberg, H. (1952). The description of facial expressions in terms of two dimensions. *Journal of Experimental Psychology*, 44(4), 229-237. doi:10.1037/h0055778
- Schommer-Aikins, M. (1994). An emerging conceptualization of epistemological beliefs and their role in learning. In R. Garner and P. Alexander (Eds.), *Beliefs about text and about text instruction* (pp. 25-39). Hillsdale, NJ: Erlbaum.
- Sinnott, J. D. (1981). The theory of relativity: A metatheory for development. *Human Development*, 24(5), 293-311. doi:10.1159/000272708
- Solomon, R. C. (1985). *In the spirit of Hegel: A study of G. W. F. Hegel's Phenomenology of Spirit*. New York, NY: Oxford University Press.
- Spencer-Rodgers, J., Anderson, E., Ma-Kellams, C., Wang, C., & Peng, K. (2018). What is dialectical thinking? Conceptualization and measurement. In J. Spencer-Rodgers & K. Peng (Eds.), *The psychological and cultural foundations of east Asian cognition: Contradiction, change, and holism* (pp. 1-34). New York, NY: Oxford University Press.

- Spencer-Rodgers, J., & Peng, K. (Eds.) (2018). *The psychological and cultural foundations of east Asian cognition: Contradiction, change, and holism*. New York, NY: Oxford University Press.
- Sternberg, R. J. (1998). The dialectic as a tool for teaching psychology. *Teaching of Psychology*, 25(3), 177-180. doi:10.1207/s15328023top2503_2
- Sternberg, R. J. (2001). Why schools should teach for wisdom: The balance theory of wisdom in educational settings. *Educational Psychologist*, 36(4), 227-245. doi:10.1207/s15326985ep3604_2
- Stewart, J. B. (1996). Introduction. In J. B. Stewart (Ed.), *The Hegel myths and legends* (pp. 1-16). Evanston, IL: Northwestern University Press.
- Van Manen, M. (1991). *The tact of teaching: The meaning of pedagogical thoughtfulness*. Albany, NY: State University of New York Press.
- Verene, D. P. (2007). *Hegel's absolute: An introduction to reading The Phenomenology of Spirit*. Albany, NY: State University of New York Press.
- Verkuyten, M. (2005). Ethnic group identification and group evaluation among minority and majority groups: Testing the multiculturalism hypothesis. *Journal of Personality and Social Psychology*, 88, 121-138.
- Vorauer, J. D., Gagnon, A., & Sasaki, S. J. (2009). Salient intergroup ideology and intergroup interaction. *Psychological Science*, 20, 838-845.
- Wheat, L. F. (1970). *Paul Tillich's dialectical humanism: Unmasking the God above God*. Baltimore, MD: Johns Hopkins University Press.
- Wheat, L. F. (2012). *Hegel's undiscovered thesis-antithesis-synthesis dialectics: What only Marx and Tillich understood*. Amherst, NY: Prometheus Books.

- Wilson, E. O. (2017). *The origins of creativity*. New York, NY: Liveright Publishing.
- Wilson, J. E. (2007). *Introduction to modern theology: Trajectories in the German tradition*.
Louisville, KY: Westminster John Knox Press.
- Wolsko, C., Park, B., & Judd, C. M. (2006). Considering the tower of Babel: Correlates of
assimilation and multiculturalism among ethnic minority and majority groups in the
United States. *Social Justice Research, 19*, 277-306.
- Wolsko, C., Park, B., Judd, C. M., & Wittenbrink, B. (2000). Framing interethnic ideology:
Effects of multicultural and color-blind perspectives on judgments of groups and
individuals. *Journal of Personality and Social Psychology, 78*, 635-654.
- Wong, W. C. (2006). Understanding dialectical thinking from a cultural-historical perspective.
Philosophical Psychology, 19(2), 239-260. doi:10.1080/09515080500462420
- Wundt, W. (1903). *Gundzüge der physiologischen psychologie* (5th ed., Vol. 3). Leipzig: W.
Engelmann.

Appendix A

A Dialectical Method for Learning

This dialectical method for learning is designed to facilitate your dialectical thinking about an area of study. Thinking dialectically can help you to gain a deeper and more complete understanding of complex phenomena. By following the steps provided, you can create a dialectical circumplex model related to a topic of your choosing. This model can serve as a pedagogical tool in the classroom, a conceptual framework for future research, or a reference guide on the topic. Most steps include checkboxes to guide your thinking, but only limited space to keep notes. Please attach supporting documents as needed.

Please be aware that the validity of your model cannot be guaranteed but is dependent on your ability to synthesize the available literature, employ sound logic, and corroborate your thinking. We strongly encourage collaboration during the development and validation of your dialectical circumplex model.

1. Select a topic of interest. Your topic should...

- Focus on a *complex* natural or social phenomenon
- Involve an existent *substantial* scientific or scholarly base
- Inspire *divergent* theories, philosophies, or perspectives

❖ **Topic:** _____

↳ Why this topic? (*Optional*): _____

2. Ask a question related to your topic. Your question should...

- Begin with “What” or “How” (save “Why” questions for step 16)
- Be sufficiently broad or overarching (save more specific questions for step 16)
- Guide your thinking throughout this process

❖ **Question:** _____

↳ How would answering this question be helpful? (*Optional*): _____

3. Familiarize yourself with the relevant literature. This may include...

- Making a table of prominent scholars, articles, and/or findings
- Creating an annotated bibliography
- Writing a literature review

↳ Are there gaps in the current literature? (*Optional*): _____

4. Organize your thinking around a few major themes, theories, or perspectives offered in the literature. This may be presented in a...

- Table
- Web/Thought map
- Flowchart
- Venn diagram
- Other _____

5. Establish a thesis and antithesis. The thesis and antithesis should...

- Represent two *major* ideas, theories, or viewpoints in a single word or phrase
- Present as opposites in the literature or in the real world
- Be in conflict or at odds with one another in some way
- Appear to influence each other (e.g., the antithesis is a response to the thesis, etc.)

❖ **Thesis:** _____

↳ Support your reasoning (*Optional*): _____

❖ **Antithesis:** _____

↳ Support your reasoning (*Optional*): _____

6. **Add the thesis and antithesis to the dialectical circumplex model.** See attached model.

7. **Identify two dimensions along which the thesis and antithesis oppose each other.** Each dimension should...

- Represent a broad concept or continuum in a single word or phrase
- Have opposite poles that explain the contradiction between the thesis and antithesis
- Be inferred from or described in the literature (see steps 3 & 4)

❖ **Dimension 1:** _____

↳ Support your reasoning (*Optional*): _____

❖ **Dimension 2:** _____

↳ Support your reasoning (*Optional*): _____

8. **Label the poles of the two dimensions.** Each pole of a single dimension should...

- Represent a specific concept in a single word or phrase
- Exist at an extreme end of the dimension
- Be associated with *either* the thesis or antithesis
 - Pole 1 of each dimension should be associated with the thesis
 - Pole 2 of each dimension should be associated with the antithesis

❖ **Dimension 1:** _____

▪ **Pole 1:** _____

▪ **Pole 2:** _____

↳ Support your reasoning (*Optional*): _____

❖ **Dimension 2:** _____

▪ **Pole 1:** _____

▪ **Pole 2:** _____

↳ Support your reasoning (*Optional*): _____

9. Add the poles of the two dimensions to the dialectical circumplex model. See attached model.

10. Define the thesis and antithesis. Follow these steps...

- Fill out the poles below (see step 8 or attached model)
- Define the thesis and antithesis
 - The definitions should reflect the position of the thesis or antithesis within the dialectical circumplex model.
 - The definitions should be based in the literature (see steps 3 & 4).

❖ **Thesis:** _____

▪ **Dimension 1, Pole 1:** _____

▪ **Dimension 2, Pole 1:** _____

▪ **Definition:** _____

↳ Support your reasoning (*Optional*): _____

❖ **Antithesis:** _____

▪ **Dimension 1, Pole 2:** _____

▪ **Dimension 2, Pole 2:** _____

- **Definition:** _____

↳ Support your reasoning (*Optional*): _____

11. Designate and define a synthesis and diathesis. Follow these steps...

- Fill out the poles below (see step 8 or attached model)
- Decide which set of poles are associated with the synthesis and diathesis
 - The synthesis should be a positive compromise or reconciliation between the thesis and antithesis.
 - The diathesis should combine the thesis and antithesis in a detrimental or negative way.
- Designate a synthesis and diathesis
 - The synthesis and diathesis should each represent an idea, theory, or viewpoint in a single word or phrase.
 - The synthesis and diathesis *may* be found in the literature (see steps 3 & 4).
- Define the synthesis and diathesis
 - The definitions should reflect the position of the synthesis or diathesis within the dialectical circumplex model.
 - The definitions *may* be based in the literature (see steps 3 & 4).

❖ _____ **thesis:** _____

- **Dimension 1, Pole 1:** _____
- **Dimension 2, Pole 2:** _____
- **Definition:** _____

↳ Support your reasoning (*Optional*): _____

❖ _____ **thesis:** _____

- **Dimension 1, Pole 2:** _____
- **Dimension 2, Pole 1:** _____

- **Definition:** _____

↳ Support your reasoning (*Optional*): _____

12. Add the synthesis and diathesis to the dialectical circumplex model. See attached model.

13. Reflect on the completed dialectical circumplex model and discuss it with your partner/group/colleagues. Consider the questions...

- Are the thesis, antithesis, synthesis, and diathesis all ideas, theories, or viewpoints related to my topic?

Notes: _____

- Do their positions within the dialectical circumplex model make sense?
 - Are the thesis and antithesis true conceptual opposites?
 - Are the synthesis and diathesis true conceptual opposites?
 - Is the synthesis an advantageous reconciliation between the thesis and antithesis?
 - Is the diathesis an unfavorable mix of the thesis and antithesis?

Notes: _____

- Do the poles and their dimensions accurately describe the differences among the various ideas, theories, or viewpoints related to my topic?

Notes: _____

- What improvements can be made to make this model more accurate or useful for answering my question?

Notes: _____

14. Modify your dialectical circumplex model as needed. Use the feedback provided in step 13. You may wish to revisit or repeat earlier steps.

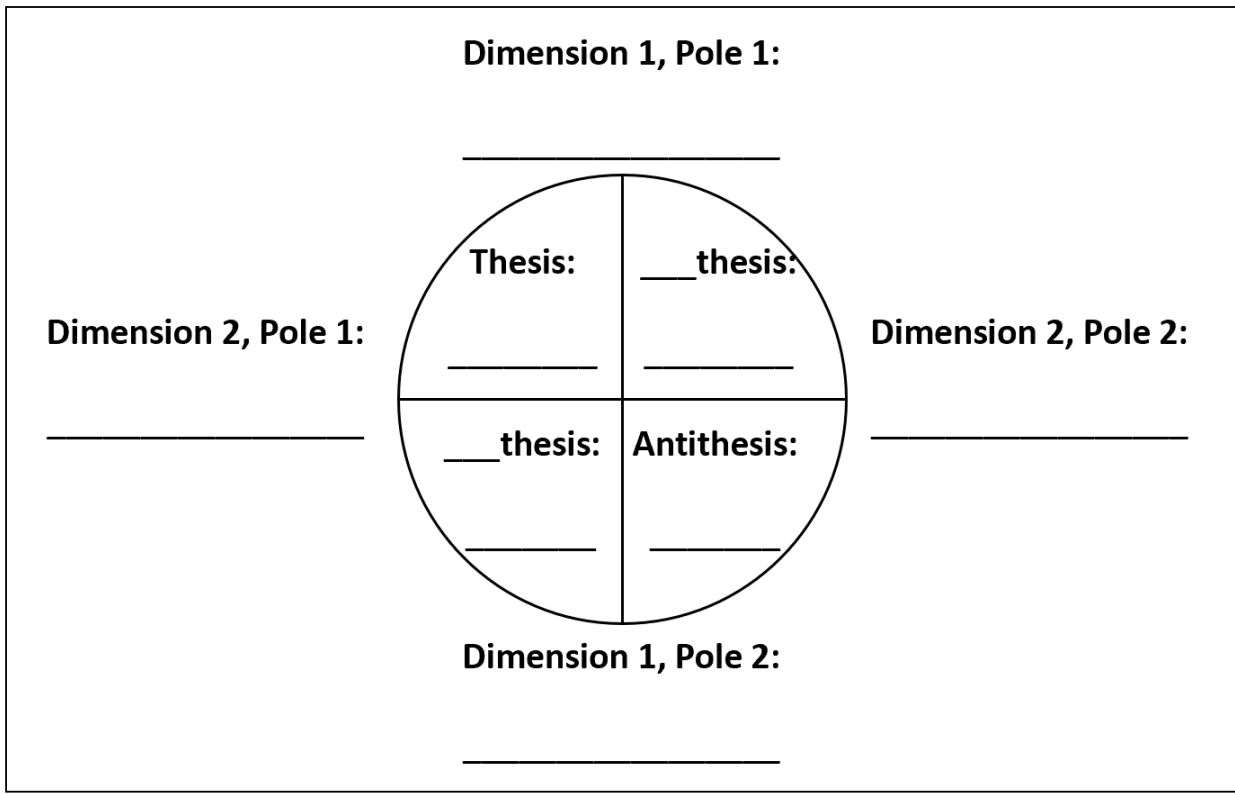
15. Answer your original question. Summarize your conclusions and insights here.

Notes: _____

16. Consider follow-up questions, future research directions, practical uses, etc.

Notes: _____

Dialectical Circumplex Model of _____(Topic)



Appendix B

A Dialectical Method for Learning

This dialectical method for learning is designed to facilitate your dialectical thinking about an area of study. Thinking dialectically can help you to gain a deeper and more complete understanding of complex phenomena. By following the steps provided, you will create a dialectical circumplex model related to a topic of your choosing. This model can serve as a pedagogical tool in the classroom, a conceptual framework for future research, or a reference guide on the topic. Most steps include checkboxes to guide your thinking, but only limited space to keep notes. Please attach supporting documents as needed.

Please be aware that the validity of your model cannot be guaranteed but is dependent on your ability to synthesize the available literature, employ sound logic, and corroborate your thinking. We strongly encourage collaboration during the development and validation of your dialectical circumplex model.

1. Select a topic of interest. Your topic should...

- Focus on a *complex* natural or social phenomenon
- Involve an existent *substantial* scientific or scholarly base
- Inspire *divergent* theories, philosophies, or perspectives

❖ Topic: Diversity Ideologies

↳ Why this topic? (Optional): As the United States becomes increasingly racially and ethnically diverse, the challenge of negotiating social and cultural differences in society heightens (Frey, 2015). Not only do people hold disparate beliefs about diversity, they often have competing views of how best to address it as well. This is particularly evident in the field of education where curricula, pedagogies, and policies reflect distinct diversity ideologies.

2. Ask a question related to your topic. Your question should...

- Begin with “What” or “How” (save “Why” questions for step 16)
- Be sufficiently broad or overarching (save more specific questions for step 16)
- Guide your thinking throughout this process

❖ **Question:** What are the various perspectives on diversity? How are they similar? How are they different?

↳ How would answering this question be helpful? (Optional): Plaut (2010)

suggests that to address the 21st century's complex diversity issues a diversity science must be developed that “unearth[s] cultural ideologies that help perpetuate systems of inequality” and “recognize[s] the contested nature of the concepts of difference” (p. 77-78, 82).

Similarly, Rattan and Ambady (2013) call for a deeper examination of the content and structure of diversity ideologies and their various interpretations. Thus, Diversity is a modern-day topic of debate that stands to benefit from a reconceptualization and a clarification of terms.

3. Familiarize yourself with the relevant literature. This may include...

- Making a table of prominent scholars, articles, and/or findings
- Creating an annotated bibliography
- Writing a literature review (see attached)

↳ Are there gaps in the current literature? (Optional): As Rattan and Ambady (2013) astutely deduce, neither colorblindness nor multiculturalism is likely to be "a panacea for improving intergroup relations" (p. 19). They recommend that an alternative diversity ideology be developed and tested.

4. Organize your thinking around a few major themes, theories, or perspectives offered in the literature. This may be presented in a...

- Table (see attached)
- Web/Thought map (see attached)
- Flowchart
- Venn diagram
- Other _____

5. Establish a thesis and antithesis. The thesis and antithesis should...

- Represent two *major* ideas, theories, or viewpoints in a single word or phrase
- Present as opposites in the literature or in the real world
- Be in conflict or at odds with one another in some way
- Appear to influence each other (e.g., the antithesis is a response to the thesis, etc.)

❖ **Thesis:** Colorblindness

↳ Support your reasoning (Optional): Colorblindness is one of two primary diversity ideologies identified in the literature.

❖ **Antithesis:** Multiculturalism

↳ Support your reasoning (*Optional*): According to the literature,

multiculturalism, the second primary diversity ideologies, developed in reaction to colorblindness and stands in opposition to it.

6. Add the thesis and antithesis to the dialectical circumplex model. See attached model.

7. Identify two dimensions along which the thesis and antithesis oppose each other. Each dimension should...

- Represent a broad concept or continuum in a single word or phrase
- Have opposite poles that explain the contradiction between the thesis and antithesis
- Be inferred from or described in the literature (see steps 3 & 4)

❖ **Dimension 1:** Identity

↳ Support your reasoning (*Optional*): While the colorblindness diversity

ideology emphasizes the individual in an attempt to minimize the

importance of group differences, multiculturalism encourages group

differences be both recognized and celebrated.

❖ **Dimension 2:** Culture

↳ Support your reasoning (*Optional*): Colorblindness and multiculturalism

have different perspectives on culture. Colorblindness hopes to unite

groups of people under one superordinate category of culture.

Multiculturalism, on the other hand, believes differences in culture should be respected and maintained to attain group harmony.

8. Label the poles of the two dimensions. Each pole of a single dimension should...

- ☑ Represent a specific concept in a single word or phrase
- ☑ Exist at an extreme end of the dimension
- ☑ Be associated with *either* the thesis or antithesis
 - Pole 1 of each dimension should be associated with the thesis
 - Pole 2 of each dimension should be associated with the antithesis

❖ **Dimension 1:** Identity

- **Pole 1:** Individual
- **Pole 2:** Group Member

↳ Support your reasoning (*Optional*): Colorblindness prescribes a view of a person, first and foremost, as an individual while multiculturalism promotes a view of a person as a member of a group.

❖ **Dimension 2:** Culture

- **Pole 1:** Universal
- **Pole 2:** Particular

↳ Support your reasoning (*Optional*): Colorblindness adopts a universal view of culture. Its mantra might be "There is only one race, the human race." In contrast, multiculturalism conceives of culture as particular;

each ethnic or racial group has its own cultural identity made up of a particular language, customs, and belief system, etc.

9. Add the poles of the two dimensions to the dialectical circumplex model. See attached model.

10. Define the thesis and antithesis. Each definition should...

- ☑ Fill out the poles below (see step 8 or attached model)
- ☑ Define the thesis and antithesis
 - The definitions should reflect the position of the thesis or antithesis within the dialectical circumplex model.
 - The definitions should be based in the literature (see steps 3 & 4).

❖ **Thesis:** Colorblindness

- **Dimension 1, Pole 1:** Individual
- **Dimension 2, Pole 1:** Universal
- **Definition:** Colorblindness is the belief that a person's identity is determined by their individual characteristics not their group membership—we are all part of the human race—because people are unique, autonomous, and self-determined.

↳ Support your reasoning (*Optional*): see attached literature review, tables, & thought map

❖ **Antithesis:** Multiculturalism

- **Dimension 1, Pole 2:** Group Member

- **Dimension 2, Pole 2:** Particular
- **Definition:** Multiculturalism is the belief that a person's identity is primarily determined by their group membership because each culture has its own particular traditions, customs, beliefs, etc.
- ↳ Support your reasoning (*Optional*): see attached literature review, tables, & thought map

11. Designate and define a synthesis and diathesis. Follow these steps...

- Fill out the poles below (see step 8 or attached model)
- Decide which set of poles are associated with the synthesis and diathesis
 - The synthesis should be a positive compromise or reconciliation between the thesis and antithesis.
 - The diathesis should combine the thesis and antithesis in a detrimental or negative way.
- Designate a synthesis and diathesis
 - The synthesis and diathesis should each represent an idea, theory, or viewpoint in a single word or phrase.
 - The synthesis and diathesis *may* be found in the literature (see steps 3 & 4).
- Define the synthesis and diathesis
 - The definitions should reflect the position of the synthesis or diathesis within the dialectical circumplex model.
 - The definitions *may* be based in the literature (see steps 3 & 4).
- ❖ Syn thesis: Interculturalism
 - **Dimension 1, Pole 1:** Individual
 - **Dimension 2, Pole 2:** Particular

- **Definition:** Interculturalism is the belief that a person's identity is determined by multiple, intersecting identities which reflect the way cultures interact with each other and change over time.

↳ Support your reasoning (Optional): see attached literature review, tables, & thought map

❖ Dia thesis: Ethnocentrism

- **Dimension 1, Pole 2:** Group Member
- **Dimension 2, Pole 1:** Universal
- **Definition:** Ethnocentrism is the belief that a person's identity is determined by their group membership because they are either part of your group or not. Likewise, a person's culture can be judged against one's own because there is only one way to be human.

↳ Support your reasoning (Optional): People who hold an ethnocentric ideology have a strong sense of ethnic group self-importance and self-centeredness (Bizumic & Duckitt, 2012). They judge other social groups based on the belief that their own group is the standard of what is reasonable and proper in life (Brislin, 1993). Also, see attached tables & thought map.

12. Add the synthesis and diathesis to the dialectical circumplex model. See attached model.

13. Reflect on the completed dialectical circumplex model and discuss it with your partner/group/colleagues. Consider the questions...

- Are the thesis, antithesis, synthesis, and diathesis all ideas, theories, or viewpoints related to my topic?

Notes: Yes, ethnocentrism is not called out in the literature as a diversity ideology, but it does represent a perspective on diversity that fits as the diathesis.

- Do their positions within the dialectical circumplex model make sense?
- Are the thesis and antithesis true conceptual opposites?
 - Are the synthesis and diathesis true conceptual opposites?
 - Is the synthesis an advantageous reconciliation between the thesis and antithesis?
 - Is the diathesis an unfavorable mix of the thesis and antithesis?

Notes: : Yes, the diathesis ethnocentrism assumes knowledge of a person's identity based on that person's group membership compared against one's own culture, which they see as universal while the synthesis interculturalism operates from a place of not knowing—an individual is a unique constellation of multiple, intersecting identities and cultures.

- Do the poles and their dimensions accurately describe the differences among the various ideas, theories, or viewpoints related to my topic?

Notes: Yes; although there are more differences between the ideologies, these are the primary differences from whence the others flow.

- What improvements can be made to make this model more accurate or useful for answering my question?

Notes: No modifications at this time.

14. Modify your dialectical circumplex model as needed. Use the feedback provided in step 13. You may wish to revisit or repeat earlier steps.

15. Answer your original question. Summarize your conclusions and insights here.

Notes: The Dialectical Circumplex Model of Diversity Ideologies consists of four diversity ideologies: colorblindness, multiculturalism, interculturalism, and ethnocentrism. The diversity ideologies are defined along two dimensions, philosophy of identity and philosophy of culture. In terms of the identity dimension, some people believe a person's identity is determined by their individual characteristics while others view their group membership as more important. Thus, the poles of the identity dimension are individual and group member. In terms of the culture dimension, some people believe culture is universal among humans while others see culture as particular across groups. Thus, the poles of the culture dimension are universal and particular.

The thesis colorblindness is defined as individual and universal meaning that people who hold this diversity ideology believe a person's identity is determined by their individual characteristics not their group membership—

we are all part of the human race—because people are unique, autonomous, and self-determined. The antithesis multiculturalism is defined as group member and particular meaning people who hold this diversity ideology believe a person's identity is primarily determined by their group membership because each culture has its own particular traditions, customs, beliefs, etc. Therefore, colorblindness and multiculturalism are fundamentally opposed on the topic of diversity and how best to understand it.

The synthesis interculturalism is defined as individual and particular meaning people who hold this diversity ideology believe a person's identity is determined by multiple, intersecting identities which reflect the way cultures interact with each other and change over time. This diversity ideology represents a reconciliation between colorblindness and multiculturalism because it balances recognizing a person's individual characteristics with acknowledging the particularities of culture. The diathesis ethnocentrism is defined as group member and universal meaning people who hold this diversity ideology believe person's identity is determined by their group membership because they are either part of your group or not. Likewise, a person's culture can be judged against one's own because there is only one way to be human. This diversity ideology represents an unfavorable combination of colorblindness and

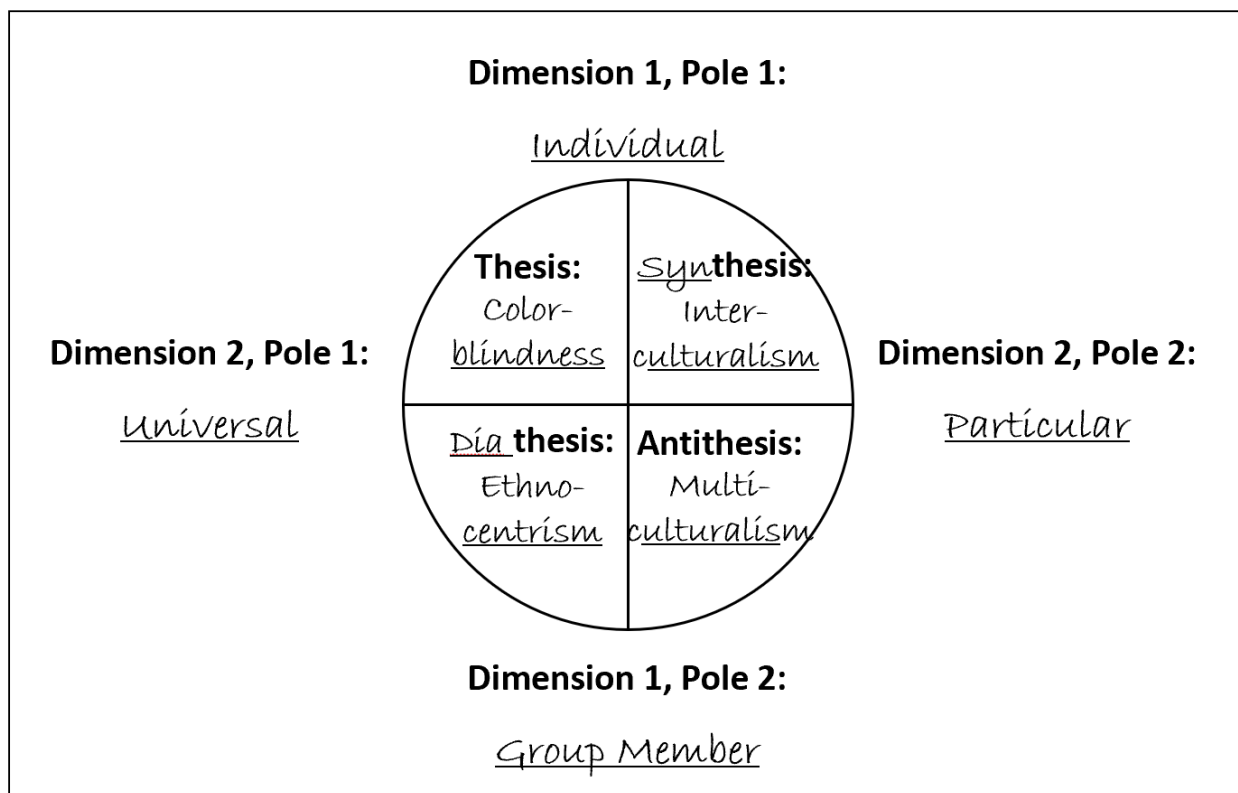
multiculturalism because it involves assuming a person's identity is based on their group membership and judging them according to a universal standard of culture. Therefore, interculturalism and ethnocentrism are fundamentally opposed on the topic of diversity and how best to understand it.

Colorblindness and ethnocentrism both view culture as universal, but they disagree as to the source of identity. Ethnocentrism and multiculturalism agree that group membership is most important for identity, but do not view culture in the same way. Multiculturalism and interculturalism understand culture as particular across groups, but do not agree as to the source of identity. Interculturalism and colorblindness agree that individual characteristics are most important for identity, but do not view culture in the same way.

16. Consider follow-up questions, future research directions, practical uses, etc.

Notes: How well do these four types of diversity ideologies represent the ways people actually think about diversity? See Appendix C for an example survey inspired by this Dialectical Circumplex Model of Diversity Ideologies.

Dialectical Circumplex Model of Diversity Ideologies (Topic)



Step 3. Literature Review

According to the literature, *diversity ideologies* are people's beliefs and practices in regard to diversity and, more specifically, their theories about how to improve relations and achieve equality among groups (Rattan & Ambady, 2013; Rosenthal & Levy, 2010). I offer a brief introduction to the two major diversity ideologies called out in the research, namely colorblindness and multiculturalism. Then, I review the current research on diversity ideologies. I end by discussing an alternative ideology proposed by the literature.

Colorblindness

The diversity ideology referred to as *colorblindness* does not actually resemble its biological namesake. Those whose views on diversity are shaped by colorblindness do not, in fact, have a decreased ability to distinguish color. Instead, they do not see color or, in this case, racial or ethnic differences as pivotal elements in their interactions with others or in society at large. People who operate from a colorblindness racial ideology believe that skin color should not determine an individual's access to quality education, compensation for talent and hard work, or ability to own a home in a neighborhood of their choosing. They see "downplaying group distinctions and treating people as unique individuals" as the key to achieving this equality (Rattan & Ambady, 2013, p. 12). In an effort to overcome differences in social identity, colorblindness proponents prefer to emphasize an overarching, unifying category rather than racial or ethnic categories (Plaut, 2010). For instance, the superordinate categories of "American" or "human" may be favored over social identities like "Korean-American" or "Black."

In the U.S., colorblindness came to prominence as an ideological method for overcoming *de jure* racial segregation (Rattan & Ambady, 2013). Probably the most quoted example of this

position is from Martin Luther King, Jr's (1963) iconic "I Have a Dream" speech from the March on Washington where he expressed his hope that his children would one day live in a nation where they would "not be judged by the color of their skin, but by the content of their character" (p. 5). Ironically, King was an advocate for race-*conscious*, not colorblind, policies (Plaut, 2010). Nevertheless, colorblindness remains a popular ideology among those who proclaim themselves anti-racist.

Multiculturalism

The second diversity ideology highlighted by the research, *multiculturalism*, stands in almost diametrical opposition to colorblindness. It emerged in Canada and the U.S. in the 1980s and 1990s, a product of the anti-assimilationist ethnic group movements of the 1960s and 1970s (Plaut, 2010). Multiculturalism claims that, in order to attain equality and harmony among groups in society, "[group memberships] must be acknowledged and valued as meaningful sources of identity and culture" (Rattan & Ambady, 2013, p.13). Multiculturalism is staunchly anti-assimilationist and is, subsequently, quite critical of the colorblind perspective's neglect of cultural differences. According to the multicultural ideology, ignoring group memberships is detrimental to minority group members (Holoien & Shelton, 2012) while learning about different groups and developing an understanding and appreciation for them can actually reduce prejudice (Rattan & Ambady, 2013; Rosenthal & Levy, 2010).

Current Research

Although diversity ideologies have been relatively understudied, the research on colorblindness and multiculturalism tells a complicated story (Rattan & Ambady, 2013). Under certain circumstances, colorblindness has been shown to reduce explicit outgroup bias among whites (Correll, Park, & Smith, 2008) and cause them to view the core values of outgroup

members as more similar to their own (Wolsko, Park, Judd, & Wittenbrink, 2000). However, colorblindness has also been associated with greater pro-white implicit bias (Richeson & Nussbaum, 2004) and greater verbal and nonverbal prejudice during interactions with minority partners (Holoien & Shelton, 2012). When primed with multiculturalism instead, majority members tend to make more positive comments during interracial interactions (Vorauer, Gagnon, & Sasaki, 2009) and are more accepting of outgroups (Verkuyten, 2005). Yet in another study, minority group members primed with multiculturalism tended to exhibit greater ingroup bias (Wolso, Park, & Judd, 2006). Additionally, multiculturalism has been found to lead both to greater stereotyping and to reduced prejudice among whites (Wolsko et al., 2000). At present, “equivocal” may be the best way to describe research on the diversity ideologies colorblindness and multiculturalism.

Interculturalism

As Rattan and Ambady (2013) astutely deduce, neither colorblindness nor multiculturalism is likely to be “a panacea for improving intergroup relations” (p. 19). They recommend that an alternative diversity ideology be developed and tested. Some researchers have taken up this call. Most recommend ideologies that merely combine colorblindness and multiculturalism, such as a two-stage approach called omniculturalism (Moghaddam, 2012) and a hybrid ideology called multicultural meritocracy (Gündemir, Homan, Usova, & Galinsky, 2017). There is one alternative ideology in the literature, however, that attempts a truly novel approach to diversity called polyculturalism by some (Bernado et al., 2016; Kelley, 1999; Prashad 2001, 2003; Rosenthal & Levy, 2010) and interculturalism by others (Bouchard, 2012/2015; Cattle, 2012; Cornwell & Stoddard, 1994; Morris, Chiu, & Liu, 2015).

Morris, et al. (2015) describe polyculturalism as “a network [rather than categorical] conception of culture in which cultural influence on individuals is partial and plural and cultural traditions interact and change each other” (p. 634). Morris et al. (2015) identify *interculturalism* as the diversity ideology that flows from a polycultural view of social pluralism. Interculturalism recognizes “individuals as culturally complex, dynamic, and malleable” (Morris et al, 2015, p. 651). Unlike multiculturalism which aims to preserve “traditional” or “authentic” cultures, interculturalism celebrates the natural hybridity that occurs between cultures and within individuals (Morris et al. 2015). In fact, interculturalism seeks social cohesion by encouraging interaction and dialogue between groups over the mere goals of coexistence often associated with multiculturalism (Meer & Modood, 2012). In this way, interculturalism and colorblindness share the goal of unity, but promote different means to achieve it. Interculturalism, like multiculturalism, emphasizes the importance and value of diversity, but does not categorize people into particular social groups.

Step. 4 Thought Map



(Newman, 1973; Pieterse, 1996, 2001)

Step 4. Tables

Diversity Ideologies	Theories of Social Identity	
	Theory	Definition
<i>Ethnocentrism</i>	Ingroup/Outgroup Differentiation	To exhibit a positive bias toward people within one's social group(s) and a negative bias toward people perceived as outside one's social group(s)
<i>Multiculturalism</i>	Culturalism	To view individuals as shaped by one primary cultural group and the world's cultural traditions as separate and independent from one another
<i>Colorblindness</i>	Individualism	To view individuals as unique, autonomous, and self-determined
<i>Interculturalism</i>	Intersectionality	To view individuals as having multiple, intersecting social identities that result in overlapping experiences of privilege and oppression

(Crenshaw, 1991; Morris, Chiu, & Liu, 2015)

Diversity Ideologies	Theories of Social Pluralism	
	Theory	Formula
<i>Ethnocentrism</i>	Assimilation	$A + B + C = A$, where A, B, and C represent different social groups and A represents the dominant group
<i>Colorblindness</i>	Amalgamation	$A + B + C = D$, where A, B, and C represent different social groups and D represents a distinct new group
<i>Multiculturalism</i>	Cultural Pluralism	$A + B + C = A + B + C$, where A, B, and C represent different social groups that, over time, maintain their own unique identities
<i>Interculturalism</i>	Polyculturalism	$A + B + C = f(\Delta A^x \times \Delta B^y \times \Delta C^z)$, time where A, B, and C represent different social groups, with varying degrees of power, that interact with each other and, thus, change over time

(Morris, Chiu, & Liu, 2015; Newman, 1973)

Appendix C

Diversity Ideology Survey

We are interested in the ways people think about identity and culture in their lives.

In this short survey, you will be asked to complete some sentences. For each question, you will be presented with an incomplete sentence and two phrases that could be used to complete the sentence.

Keep in mind there are no right answers. We just ask that you select the options that most closely align with your perspective. At the end, you will have the opportunity to share, in your own words, how you think about identity and culture.

Q1 (Identity Dimension):

Complete the following sentence with the phrase that most closely matches your thinking on the topic.

The best way to understand a person's identity is to learn about...

the cultural groups to which they belong.

their individual characteristics.

↪ **If option 1 (Group Member) to Q1, then Q2.A (Ethnocentric or Multicultural):**

Complete the following sentence with the phrase that most closely matches your thinking on the topic.

Learning about the cultural groups a person belongs to helps me know...

in what ways they are similar to me or different from me.

more about their traditions, customs, beliefs, language, etc.

↪ **If option 2 (Individual) to Q1, then Q2.B (Colorblind or Intercultural):**

Complete the following sentence with the phrase that most closely matches your thinking on the topic.

Learning about a person's individual characteristics is important because...

every person is unique, self-determined, and autonomous.

each person has multiple, intersecting identities.

Q3, (Culture Dimension):

Complete the following sentence with the phrase that most closely matches your thinking on the topic.

The thing to remember about human culture is...

it is universal across groups.

it has particularities across groups.

↪ **If option 1 (Universal) to Q3, then Q4.A (Colorblind or Ethnocentric):**

Complete the following sentence with the phrase that most closely matches your thinking on the topic.

Culture can be described as universal because...

we are all part of the human race.

there is only one way to be human.

↪ **If option 2 (Particular) to Q3, then Q4.B (Intercultural or Multicultural):**

Complete the following sentence with the phrase that most closely matches your thinking on the topic.

Culture can be described as particular because...

cultures interact with each other and change over time.

cultural groups have unique and durable characteristics.

Q5:

According to your survey responses, your perspective on identity and culture can be summarized as follows:

The best way to understand a person's identity is to learn about {response to Q1} because {response to Q2.A or Q2.B}. Human culture is best described as {response to Q3} because {response to Q4.A or Q4.B}.

Please mark the extent to which you agree or disagree with the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The above statement accurately represents my thoughts about identity .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The above statement accurately represents my thoughts about culture .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6:

In your own words, please use the text box below to define **identity**.

Q7:

In your own words, please use the text box below to define **culture**.

Q8:

How would you describe *your* **identity**?

Q9:

How would you describe *your* **culture**?

Summary Statements for Q5:

Four Main Types of Diversity Ideologies

❖ **Colorblindness** (Individual x Universal)

The best way to understand a person's identity is to learn about their individual characteristics because every person is unique, self-determined, and autonomous. Human culture is best described as universal across groups because we are all part of the human race.

❖ **Multiculturalism** (Group Member x Particular)

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then you will know more about their traditions, customs, beliefs, language, etc. Human culture is best described as particular across groups because cultural groups have unique and durable characteristics.

❖ **Interculturalism** (Individual x Particular)

The best way to understand a person's identity is to learn about their individual characteristics because each person has multiple, intersecting identities. Human culture is best described as particular across groups because cultures interact with each other and change over time.

❖ **Ethnocentrism** (Group Member x Universal)

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then I will know in what ways they are similar to me or different from me. Human culture is best described as universal across groups because there is only one way to be human.

Probable Diversity Ideology Combinations (Adjacent ideologies)

❖ Colorblindness x Ethnocentrism

- Colorblindness (Individual x Universal) with Ethnocentric ideas about culture

The best way to understand a person's identity is to learn about their individual characteristics because every person is unique, self-determined, and autonomous. Human culture is best described as universal across groups because there is only one way to be human.

- Ethnocentrism (Group Member x Universal) with Colorblind ideas about culture

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then I will know whether they are similar to me or different from me. Human culture is best described as universal across groups because we are all part of the human race.

❖ Colorblindness x Interculturalism

- Colorblindness (Individual x Universal) with Intercultural ideas about identity

The best way to understand a person's identity is to learn about their individual characteristics because each person has multiple, intersecting identities. Human culture is best described as universal across groups because we are all part of the human race.

- Interculturalism (Individual x Particular) with Colorblind ideas about identity

The best way to understand a person's identity is to learn about their individual characteristics because every person is unique, self-determined, and autonomous. Human culture is best described as particular across groups because cultures interact with each other and change over time.

❖ Multiculturalism x Ethnocentrism

- Multiculturalism (Group Member x Particular) with Ethnocentric ideas about identity

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then you will know in what ways they are similar to me or different from me. Human culture is best described as particular across groups because cultural groups have unique and durable characteristics.

- Ethnocentrism (Group Member x Universal) with Multicultural ideas about identity

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then I will know more about their traditions, customs, beliefs, language, etc. Human culture is best described as universal across groups because there is only one way to be human.

❖ Multiculturalism x Interculturalism

- Multiculturalism (Group Member x Particular) with Intercultural ideas about culture

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then you will know more about their traditions, customs, beliefs, language, etc. Human culture is best described as particular across groups because cultures interact with each other and change over time.

- Interculturalism (Individual x Particular) with Multicultural ideas about culture

The best way to understand a person's identity is to learn about their individual characteristics because each person has multiple, intersecting identities. Human culture is best described as particular across groups because cultural groups have unique and durable characteristics.

Less Probable Diversity Ideology Combinations (Opposite ideologies linked through a mutually-adjacent ideology)

❖ **Interculturalism x Colorblindness x Multiculturalism**

- Interculturalism (Individual x Particular) with Colorblind ideas about identity and Multicultural ideas about culture

The best way to understand a person's identity is to learn about their individual characteristics because every person is unique, self-determined, and autonomous. Human culture is best described as particular across groups because cultural groups have unique and durable characteristics.

❖ **Ethnocentrism x Multiculturalism x Colorblindness**

- Ethnocentrism (Group Member x Universal) with Multicultural ideas about identity and Colorblind ideas about culture

The best way to understand a person's identity is to learn about the cultural groups to which they belong because then I will know more about their traditions, customs, beliefs, language, etc. Human culture is best described as universal across groups because we are all part of the human race.